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Book 03



THE OFFICERS TRAINING CORPS OF GREAT BRITAIN

THE AUSTRALIAN SYSTEM OF NATIONAL DEFENSE

THE SWISS SYSTEM OF NATIONAL DEFENSE

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JANUARY 26, 1915.—Ordered to be printed

WASHINGTON

1915

THE OFFICERS TRAINING CORPS OF GREAT BRITAIN.

INTRODUCTORY NOTE.

In view of our great need of officers for Volunteer troops, it is thought desirable to furnish at this time a description of the system now in vogue in Great Britain. This system is but one of the many means of supplying officers for the new army of 1,000,000 men, which is being recruited, officered, and trained to meet the demands made upon the Empire by the war.

This description has been compiled from the latest data now on file in the War College Division of the General Staff.

Part I. A general description of the plan of organization and results expected from the corps. From reports of military and foreign attachés and from the Broad Arrow and Army Gazette.

Part II. A more detailed description of the plan: Excerpts from the latest army order relating to the Officers Training Corps.

Part III. A detailed description of the requirements for training in annual camps for the junior division. Excerpts from army order relating to training of the junior division.

As the difficulties encountered in Great Britain are similar to those which would be encountered by us should we become involved in a great war, interest therefore attaches to any scheme by which Great Britain has already attempted to meet the deficiency in officers, which deficiency is fully as great, if not more so, than our own.

The regulations relating to annual camps for the training of cadets in the junior division are of interest to those who may desire to attend one of our summer student camps or who may have to deal with their organization or administration.

Part I.—THE OFFICERS TRAINING CORPS OF GREAT BRITAIN.

After the Boer War, when the British Government finally decided to make a radical change in its military policy, steps were then taken to provide for a certain and steady supply of officers for troops in time of war or for the new Territorial Army, organized in 1907. In order to obtain men of the requisite mental qualifications as well as proper standing for the corps of officers, the British Government called into consultation a number of the heads of the big universities, colleges, and public schools. After a thorough investigation of the possibilities, it was determined to form in each of the universities and colleges, as well as the public schools, a corps which, in time of peace, would furnish officers for the Special Reserve or Territorials, with the idea of finally, in case of a call for large bodies of volunteers, commissioning all such candidates as might be then serving in the Officers Training Corps or who had passed

into civil life and had not become part of the Territorials or Special Reserve. There were a number of excellent suggestions made in the first place, but it was not until after 1907 that the final organization of the Officers Training Corps was completed.

There is no doubt but that the present scheme of military instruction at our land-grant colleges was investigated by the committee of General Staff officers, who reported on the proposition, and who finally recommended the present plan which resembles the scheme laid down in the present regulations issued by our War Department. In the early part of 1908 a special Army order was issued making provision for the organization of the Officers Training Corps. The object of this corps was to provide students at schools and universities with a standardized measure of elementary military training, with a view to their eventually becoming Special Reserve or Territorial officers. It was hoped that, by means of this instruction, certain young men would be willing to take these commissions as Special Reserve or Territorial officers, and by producing certificates of proficiency, obtained in the Officers Training Corps, would be exempted from a portion of the probationary training, or from certain examinations required for officers in these forces. It also was hoped that the supply of officers would be increased, and that all arms and services would not only be complete in officers on mobilization, but that there would also be a surplus in the junior commissioned ranks in order to make good the losses suffered at the beginning of the war.

The organization of the Officers Training Corps did not take place until the regulations, issued for the guidance and control of that corps, received recognition by university and school authorities, and it was not until this control was obtained that the organization or formation of a cadet organization was permitted. At this time there were approximately 21,000 young men under instruction in the colleges and preparatory schools of the United States undergoing a course somewhat similar to these young men whose organization into the Officers Training Corps had just been authorized. There is, however, this difference, that the control of and standardization of instruction and examinations is regulated by a section of the Imperial General Staff, while at present in this country no such control is provided under the law, nor is it looked upon with any degree of friendliness by a majority of college authorities.

CONSTITUTION.

The Officers Training Corps is outside of the territorial organization of the Army. For purposes of organization it is directly under the War Department and independent of the county associations, while the training is directly under the Chief of Staff and his assistants. The corps is organized into two divisions: (1) Senior division, consisting of university units; (2) junior division, consisting of public-school units. The existing self-contained University Volunteer Corps, which, under the law of 1907, could be converted into Territorial units, and the university companies, which now form part of the local Volunteer units, were permitted to transfer with their present organization to the senior division of the Officers' Training Corps.

Similarly the existing Volunteer corps and companies and the cadet corps of public schools were permitted to transfer to the junior division, retaining their arms and equipment and altering their organization as little as possible. On a corps becoming a unit of the Officers Training Corps its affiliation to a local Volunteer unit ceases, and it comes directly under the control of the War Office. The relations between an Officers Training Corps unit and a local Territorial unit were to be a matter for adjustment by their respective commanding officers. It was therefore clear that it was to the mutual advantage of each that these relations be made as close as would be consistent with the fact that each unit drew its income from a different fund, and that no county association would be required to advance funds for the upkeep of an Officers Training Corps unit.

In order to be eligible to join an Officers Training Corps a university or school contingent must have an enrolled strength of not less than 30 cadets and an establishment of officers qualified to impart the necessary instruction. A university desiring to furnish a unit for the Officers Training Corps must possess a committee of military education officially recognized by the university authorities, and certain officers of the unit must be ex officio members of this committee. Any school or university corps may apply to the Army Council for permission to join the Officers Training Corps, but no corps is admitted unless it reaches the standard laid down and is, in the opinion of the Army Council, capable of efficiently carrying out the work prescribed. In the same manner the Army Council may disband any university or school corps should it consider its retention as a unit of the Officers Training Corps undesirable in view of the object for which the corps was organized and maintained.

CONDITIONS OF SERVICE.

Cadets of the Officers Training Corps are not liable for service. University cadets will be enrolled to serve under a contract which is drawn up by each university to suit its own conditions. The Army Council must approve this contract before it is submitted to the cadets for their signatures. Membership in a unit need not be confined to matriculated members of a university, but will be open, under conditions drawn up by each university and subject to approval by the Army Council, to gentlemen who, though not members of the university, are desirous of obtaining certificate of proficiency in the military course. The enrollment of school cadets, their conditions of service, and dismissal is left in the hands of the authorities of the institution, within the limits laid down by the regulations.

TRAINING.

Each unit will be trained by its own officers under the direct control of the Chief of Staff and his assistants. Regular officers who are temporarily attached to the General Staff will be appointed to universities or groups of universities to perform the duties of adjutants and to assist in the training of both divisions of the Officers Training Corps.

CERTIFICATES OF PROFICIENCY.

Two certificates of proficiency, designated "A" and "B," will be obtainable by members of the Officers Training Corps. Certificate A represents the standard of proficiency which should be reached by a school cadet after two years' efficient service in the junior division, and certificate B that which should be reached by a university cadet after two years' efficient service in the senior division. The syllabi for the examinations for these certificates are given in the army order and carry with them certain privileges. Certificate A will entitle the holder, should he take a commission in the Special Reserve, to a reduction of the probationary training by 4 months, or 14 days, according as the normal period is 12 months or 3 months. Should he take a Territorial commission, to exemption from the whole or part of the examination for promotion to the rank of lieutenant.¹ Should he offer himself as a candidate for Woolwich or Sandhurst,² to receive 200 marks in the competitive examination held by the Civil Service Commissioners for entrance to those establishments. Certificates A and B will entitle the holder, should he take a commission in the Special Reserve, (a) to a reduction of the probationary training by 8 months, or 1 month, according as the normal period is 12 months or 3 months; (b) to a gratuity of £35 payable at the same time as his outfit allowance. Should he take a Territorial commission, to exemption from the whole or part of the examination for promotion to the rank of captain.¹ Before he can undergo the examination for certificate A, a school cadet must have performed two years' efficient service in the junior division, Officers Training Corps; and similarly a university cadet must have performed two years' efficient service in the senior division before he can be examined for certificate B. A cadet can not undergo the examination for certificate B unless he is already in possession of certificate A.

CORPS ALLOWANCES AND GRANTS.

In the senior division a yearly capitation fee of £2 shall be paid to each university unit for every "efficient" cadet on the strength. A grant of £5 will be paid to each university unit for each certificate B obtained by a subaltern officer or cadet of that unit. A grant of 3s. per day will be paid to university units for each member attending camp, up to a maximum of 15 days annually. In the junior division a yearly capitation fee of £1 will be paid to each school unit for every efficient cadet on the strength, provided that 50 per cent of those for whom the efficiency grant is claimed have attended the camp during the year.

GRANT FOR CERTIFICATE A.

A grant of £10 is paid to school units for each cadet obtaining certificate A who is afterwards granted a commission in the Special Reserve or Territorial force.

¹ The extent of the exemption allowed is based on the qualifications for promotion for officers of the different arms and services, as laid down in the Regulations for the Territorial Force, 1908.

² The first entrance examination for Woolwich and Sandhurst at which this factor came into force was that held in November, 1909.

In the senior division issues of arms, equipment, and ammunition are free. In the junior division arms are issued free to each unit in the following proportion: A serviceable arm (rifle or carbine) to each cadet of sufficient age to carry out practice, up to a maximum of 50 per cent of the total enrolled strength of the unit; a "D. P." arm (rifle or carbine) to each of the remainder. There will be no free issue of equipment or uniform. Ammunition will be issued free on a scale to be laid down hereafter.

CONDITIONS OF SERVICE OF OFFICERS.

Officers of the Officers Training Corps will be gazetted to commissions as officers of the Territorial force, and will enjoy the same privileges, precedence, and emoluments, and be subject to the same conditions as to first appointment, promotion, and retirement, as other officers of that force, with such modifications as the Army Council may think fit to introduce. Officers will have, as individuals, the same liabilities for service as other Territorial officers, their services on embodiment being at the disposal of the Army Council. Recommendations for first appointments to the Officers Training Corps will be made by the executive head of the university or the head master of the school in whose contingent the officer wishes to serve. Promotion will be based on length of service, conditionally on the officer having qualified for higher rank. Local rank may be granted to officers commanding units. Commissioned officers now serving in university or school corps who go over to the Officers Training Corps with their units will have their commissions confirmed as officers of the Territorial force in the rank and with the seniority to which they are entitled at the time of transfer. Officers of Territorial units and officers of the Special Reserve may be seconded for service with the Officers Training Corps.

"The scheme during the first four years of its operation has been very fairly successful, as will be seen from the following table, giving the number of ex-cadets who, up to date, have accepted commissions in the Special Reserve or Territorial force.¹ In addition to those who have actually accepted commissions it must be remembered that there are a large number of others who have passed through the Officers Training Corps and have received the training qualifying them for subaltern rank. Although some have now passed into civil life, and, for reasons good or bad, have not seen their way to serve in time of peace, while others are serving in the ranks, it is certain that they would come forward in sufficient numbers to fill gaps on mobilization for war."

¹ NOTE.—

	Appointed to Special Reserve.	Appointed to Territorial force.
1909.....	15	Not available.
1910.....	83	553
1911.....	159	Not available.
1912.....	213	343
1913.....	285	449

THE CADET BATTALIONS.

[Report on voluntary service, Great Britain.]

"In addition to the cadet battalions and companies which form part of the Officers Training Corps, there is an increasing number of ordinary cadet battalions and companies all over the United Kingdom. They are recognized by the War Office, and administered by county associations, who draw a small grant on their behalf. They form a valuable link between the boyhood of a locality and the units found by that locality for the Territorial force, and a very large number of their ex-cadets are now passing regularly each year into the Home Army.

"No mention is made here of the Boy Scouts' organization, or of such of the Boys' Brigades as have decided not to apply for recognition as cadets, through which, of course, the vast majority of the boys of this country pass at one time or other of their boyhood. The primary object of these valuable voluntary organizations is not military, and they therefore not only do not receive but will not accept official recognition by the military authorities. Nevertheless, they are a striking testimony to the popularity of voluntary service in the country when wisely and sympathetically administered, and can not fail to react favorably both upon the discipline and the numbers of all the branches of the Imperial forces."

Authorities.—Broad Arrow; orders, War Office, London.

Part II.—EXCERPT FROM THE ARMY ORDER CONTAINING REGULATIONS FOR THE ORGANIZATION OF THE OFFICERS' TRAINING CORPS.

I. GENERAL PRINCIPLES.

Object.—The primary object of the Officers Training Corps is to provide students at schools and universities with a standardized measure of elementary military training, with a view to their eventually applying for commissions in the Special Reserve of Officers or the Territorial force. It should, therefore, be understood that the aim of every university and school which provides a contingent for the Officers Training Corps must be to provide as many officers for the Special Reserve of Officers and the Territorial force as possible.

Recognition of proficiency.—Gentlemen, who, on being recommended for commissions in the Special Reserve of Officers or the Territorial force, can produce certificates of proficiency obtained in the Officers Training Corps, will be exempted from a portion of the probationary training, or from certain examination, required from other officers. By means of the facilities thus offered to men who wish to serve their country with the least possible interference with their civil career, it is hoped that the supply of officers may be increased, and that all arms and services may not only be complete in officers on mobilization, but also have a surplus in the junior commissioned ranks in order to make good the losses which will occur in war. The value of the above-mentioned certificates of proficiency lies in their being the guarantee of from two to four years' consecutive training of a nature calculated to produce good officers.

II. CONSTITUTION.

The Officers Training Corps consists of contingents of those universities and schools whose offer has been accepted by the Army Council.

Conditions of eligibility to join.—To be eligible for inclusion in the Officers Training Corps a university or school contingent must show an enrolled strength of not less than 30 cadets, and must have at least one commissioned officer per company. A university desiring to furnish a contingent for the Officers Training Corps must possess a committee of military education officially recognized by the university authorities, and certain officers of the contingent must be ex officio members of this committee.

Schools in receipt of a parliamentary grant.—Financial assistance will in no case be given to any school in receipt of a parliamentary grant in respect of the military training of any boy who has not attained the age of 16 years. The term "financial assistance" includes the issue of arms and ammunition; but schools already in receipt of such assistance may retain their rifles and equipments, and continue to receive issues of ammunition.

III. CONTROL.

Control.—For purposes of organization and control the Officers Training Corps, except Irish contingents which are under the general officer commanding in chief in Ireland, is directly under the War Office.

The training is under the direction of the Chief of the Imperial General Staff.

University and school authorities will retain their ordinary powers of supervision and discipline.

Relations with local military units.—The relations between an Officers Training Corps contingent and a local unit of the Regular forces, Special Reserves, or Territorial force will be a matter for adjustment by their respective commanding officers, who will correspond direct. Inasmuch as the Officers Training Corps is intended to become the principal source from which officers for the Special Reserve and the Territorial force will be drawn, it will be to the mutual advantage of each that their relations be as close as is consistent with the fact that each unit draws its income through a different channel and that no county association can be called on to incur any expense in respect of the Officers Training Corps. It is intended that units of the Officers Training Corps should, when possible, obtain facilities from local units as regards technical instruction, the loan of material, and the use of rifle ranges and training grounds. If required, payment will be made out of the Officers Training Corps funds to the county association concerned, for the hire or use of any property of the association.

IV. ORGANIZATION.

General organization.—The Officers Training Corps is organized in two divisions: (a) Senior division, composed of university contingents; (b) junior division, composed of school contingents.

A university contingent may be made up of one or more units, according as one or more arms or departments of the service are represented. In cases where a university comprises practically autonomous colleges, situated at a distance from each other, a separate unit may be formed in each of the different colleges; but each such unit will be a part of the university contingent. School contingents will comprise infantry or engineers only.

Internal organization.—Each unit will be organized as a battalion, battery, squadron, or field ambulance, or in companies (one or more), sections, or troops. As regards the details of internal organization, the general rules given below will be followed.

Establishment of units.—If it is desired to raise the establishments of units without adding to the number of companies, etc., or to increase the number of companies, etc., in a contingent, sanction must be obtained from the War Office.

(a) Cavalry: (1) The strength of a troop will not exceed 30 cadets; (2) units with a total strength of from 31 to 60 cadets will be organized as two troops; (3) units with a strength of 61 to 90 cadets will be organized as a squadron of three troops; (4) units with a strength of from 91 to 120 cadets will be organized as a squadron of four troops.

(b) Field and Heavy Artillery: (1) Units having a total strength not exceeding 60 cadets will be organized as a section; (2) units having a strength of from 61 to 120 cadets will be organized as a four-gun battery; (3) units having a strength of over 120 cadets will be organized as a six-gun battery, except in the case of Heavy Artillery, which will always be organized as in (1) or (2).

(c) Engineers, Infantry, and Army Service Corps: (1) The strength of a company will not exceed 100 cadets; (2) should the strength of a unit exceed 100 cadets, two or more companies of not less than 50 cadets each will be formed; (3) should the strength of an infantry unit exceed 400 of all ranks, it will be organized as a battalion of 5 or more companies.

(d) Medical: (1) Units with a strength not exceeding 90 cadets will be organized as a section of a field ambulance; (2) if the total strength exceeds 90, a second section will as a rule be formed.

(e) Veterinary: A unit with a strength not exceeding 100 cadets will be organized in four sections Army Veterinary Corps.

(f) In all units the cyclists, signalers, buglers, and band cadets will be included in the strength of companies, and not organized as separate units.

The establishment of officers, noncommissioned officers, drummers, etc., for the above units is given in Appendix II.

V. CONDITIONS OF SERVICE.

I. OFFICERS—GENERAL CONDITIONS

Four classes of officers.—Officers of the Officers Training Corps may belong to any of the following classes: (1) Officers who have been gazetted to commissions in, or transferred to, the unattached list of the Territorial force, for service with the Officers Training Corps; (2) officers of Special Reserve¹ or Territorial force units who have been

¹ The words "Special Reserve," used in this section, will be held to include the Channel Islands Militia and the military forces of the colonies.

seconded for service with the Officers Training Corps; (3) officers of Special Reserve or Territorial force units who are temporarily attached for duty with the Officers Training Corps; (4) officers of medical units appointed to the Territorial Royal Army Medical Corps, supernumerary for service with the Officers Training Corps. In the case of undergraduate officers, who are not qualified as practitioners under the medical acts, they will be appointed "on probation" until they have obtained the necessary qualification, when they will be confirmed in their appointment.

Conditions of service. Officers will have, as individuals, the same liabilities for service as other officers of the Special Reserve or the Territorial force, as the case may be; their services on embodiment will be at the disposal of the Army Council.

Appointment.—Cadets of the senior division, including university candidates for the Regular forces, who are recommended for commissions in the Territorial force under paragraph 10 (1) and (4) for service with their university contingent must have qualified in the examination for certificate A of the branch of the service in which they propose to serve.

2. CADETS.

Conditions of service.—Cadets of the Officers Training Corps will not have any legal liability to service, and will not be required to take the oath of allegiance.

University cadets.—Cadets of the senior division will be enrolled to serve under a contract to be drawn up by each university to suit its own conditions. Membership need not be confined to members of a university, but may be open, at the discretion of the university authorities and officers commanding units, and under the terms of the contract mentioned above, to gentlemen who, though not members of the university, are desirous of gaining certificates of proficiency obtainable in the Officers Training Corps, and to students who, on passing out of residence, are desirous of remaining in the contingent in order to obtain these certificates, subject to the approval of the military committee.

School cadets.—No boy under 13 years of age will be enrolled in the junior division; otherwise the conditions for enrollment, service, and dismissal of school cadets will be in the hands of head masters and school authorities within the limits of these regulations. Cadets who have left the school may, with the approval of the head master, be retained in the contingent, on the understanding that such cadets are continuing their service for the sole purpose of obtaining certificate A. In no case can they remain after attaining the age of 20.

Cadet officers.—In the junior division cadets may, with the approval of head masters, be appointed "cadet officers" in the proportion of 1 cadet officer to every 30 cadets. Cadet officers will wear officer's uniform without any badges of rank; they will not hold commissions, and will not be recognized as officers, or exercise any power of command as such, outside their own units.

Adjutants, senior division.—Adjutants of contingents will not merely be required to assist in the administration of the contingent; they must be fully competent to undertake the duties of instructor and lecturer in the theory and practice of the subjects which are included in the military education of cadets; and as ex officio members

of the military committees of universities they must be qualified to advise the committee on all matters of military education and training.

Appointments will be made by the War Office from the approved list of candidates. Officers desiring that their names may be noted on this list will submit their applications through the usual channel. In view of the extreme importance of their position, it is desirable that commanding officers should forward the names of those officers only whom they consider fully qualified to undertake the duties and likely to acquire a strong influence over the cadets of the contingent.

Sergeant instructors.—Noncommissioned officers of the Regular forces will be appointed to the establishment of contingents of the senior division. No instructor will be attached to a unit, or part of a unit, of the senior division, whose strength is less than 30 cadets, nor to a unit of the junior division in any case.

VI. TRAINING.

OFFICERS.

Attendance at parades.—Inasmuch as the training of cadets is for the greater part of the year in the hands of the officers of each contingent, it is desirable that officers should attend all drills at which cadets of their squadron, company, etc., are present, unless excused by the officer commanding the contingent. Commanding officers of contingents will certify in the annual inspection report that all officers on the establishment of the contingent have attended the number of drills laid down for Territorial force officers of the same branch of the service in Territorial Force Regulations, Appendix 6.

Regimental exercises.—Regimental exercises will be organized by the General Staff at the War Office, with the assistance of such officers of the Officers Training Corps as may reside in the neighborhood of the place where the tour is held. The duties of the directing staff will, when required, be carried out by Regular officers detailed by general officers commanding in chief.

Camp training.—All officers of contingents of the senior division should, if possible, be present at the annual camp of their contingent. In the junior division, should the number of officers in a contingent exceed 1 to every 30 cadets attending camp, leave may be granted at the discretion of the officer commanding. Officers excused from attending the annual camp with their contingent should endeavor either to perform training by being attached to a unit of the Regular forces, Special Reserve, or the Territorial force, or to attend a course of instruction as laid down in paragraph 382, Territorial Force Regulations.

CADETS.

Object of training.—The object of all training in the Officers Training Corps is to bring the largest possible number of cadets up to the standard of proficiency indicated by the syllabus laid down for the examination for certificates A and B.

Responsibility.—The training of the Officers Training Corps generally is under the direction of the Chief of the Imperial General Staff. Each unit will be trained by its own officers.

Assistance from Regular officers, senior division.—In contingents of the senior division, the adjutant, as representative of the General Staff, will supervise the training of the contingent. He will be assisted for a few weeks prior to each of the half-yearly examinations for certificates of proficiency by Regular officers attached to the contingent. Officers commanding contingents in England, Scotland, and Wales will apply to the War Office for the officers they require. Officers commanding contingents in Ireland will apply to the general officer commanding in chief the forces in Ireland.

Junior division.—In the junior division, assistance in the training of contingents will be given either by an officer detailed from a depot in the vicinity of the school, or by the adjutant of a neighboring university contingent, or by an officer from headquarters, as shown in Appendix IV. Such officers should pay occasional visits to the contingent during drills, maneuver practices, or musketry training, and should, when their duties permit, be present at field days and at the annual inspection. They will correspond direct with contingents.

Nature of training.—Training will comprise: (a) Instructional parades and exercises, and field operations; (b) musketry; (c) annual training in one of the camps organized for the Officers Training Corps.

Instructional parades.—A parade will consist of not less than 45 minutes' actual training. Two parades of half an hour each will count as one parade. Any tactical or instructional exercise is included under this heading. If the exercise is of not less than 3 hours' duration, it will count as two parades, but no single day's work will be reckoned as more than two parades. Each complete day spent in annual camp will count as a parade up to a maximum of 5 days annually in the senior division, and 10 days in the junior division. In the case of cadets of the senior division who are performing the additional parades laid down, the maximum of 5 days will be increased to 10 days.

Schools of musketry, signaling, and military engineering.—Cadets will undergo a musketry training on similar lines to that laid down for the Territorial force, or will perform the miniature course laid down for the Officers Training Corps.

Cadets of the senior division who hold the rank of noncommissioned officers may be selected by officers commanding contingents to attend a course at a school of musketry, signaling, or military engineering. Names will be submitted through the headquarters of the command to the commandant of the school.

Camps, senior division.—Camps of not less than 8 or more than 15 days' duration will be held annually for units of the senior division at convenient centers. Arrangements will be submitted for approval to the General Staff of the command in which the contingent is situated, who will obtain sanction from the War Office. Details will be worked out direct with the General Staff of the command in which the camp is to be held. Cadets should be encouraged to attend as many parades as possible prior to the annual training in camp.

Regular officers in camp.—Regular officers will, when necessary, be appointed by the Army Council to command brigades, or such other units as may be formed provisionally for purposes of training in camp, and to fill staff appointments in connection with camps. A

medical officer (either from the Regular forces or the Territorial force) will be appointed when necessary.

Junior division.—Camps of not less than 8 days' duration will be held annually at the end of July for contingents of the junior division. The number of camps formed will depend on the number of cadets expected to attend, and contingents will, as a rule, be allotted to camps according to the command in which the school is situated.

Attention is drawn to the instructions for the annual camps, which are issued by the War Office.

Regular officers.—Each camp will be under the command of a Regular officer. Regular officers will also be appointed, when available, to command battalions, or such other units as may be formed for the purposes of camp, and to fill the necessary staff appointments. Medical officers will be appointed either from the Regular forces or the Territorial force.

Inspections.—All contingents will be inspected annually by officers deputed by the Chief of the Imperial General Staff. Officers commanding contingents will apply to the Director of Military Training, War Office, not later than 1st of February, for the inspection of their contingents, stating what dates will be most suitable. Alternative dates should be given.

VII. CONDITIONS OF EFFICIENCY.

Cadets of senior division.—The conditions of efficiency will be as follows:

A cadet who is borne on the strength of a unit of the senior division on 1st of October in any year will be entitled to be deemed an "efficient" if he is physically fit¹ and if during the preceding 12 months he has fulfilled the following requirements: (1) Attended not less than 15 instructional parades of his unit, of at least 45 minutes' duration each (as a recruit, not less than 30 parades—a cadet who has been returned as an efficient in the junior division will not be reckoned as a recruit on joining a unit of the senior division); (2) undergone the prescribed training in musketry; (3) attended camp, of not less than 8 days' duration, and been present at the annual inspection, except in cases of sickness duly certified or leave specially granted.

Cadets of junior division. A cadet borne on the strength of a unit of the junior division on 1st October in any year, who is over 15 years of age on that date (for prospective candidates for the Royal Military Academy and the Royal Military College 14 years of age for examination purposes; for capitation fee, 15 years), will be entitled to be deemed an "efficient" if he is physically fit¹ and if during the preceding 12 months he has fulfilled the following requirements: (1) Attended not less than 30 instructional parades of his unit, of at least 45 minutes' duration each (first year, not less than 40 parades); (2) undergone the prescribed training in musketry; (3) been present at the annual inspection, except in case of sickness duly certified or leave specially granted.

¹No special medical examination is required, and no grant will be made from Army funds in respect of such examination. In cases where a medical examination of a cadet of the senior division is held to be necessary, the examination should, if possible, be carried out by the medical officer of the nearest military station or by an officer of the medical unit of the contingent where such exists. The returning of a cadet as "efficient" will be accepted as sufficient guaranty that he is physically fit.

Efficiency of contingent.—The inspecting officer will state in his report whether he considers the contingent, as a whole, to be efficient. The commanding officer or inspecting officer has power to direct that a cadet shall be deemed non-efficient should he consider it proper to do so, notwithstanding that the cadet may have fulfilled the efficiency conditions laid down above.

VIII. CERTIFICATES OF PROFICIENCY.

Certificates.—Two certificates of proficiency, designated, respectively, A and B, are obtainable by cadets.

These certificates are a guaranty that the holder has completed a certain period of efficient service in a contingent of the Officers' Training Corps, and that he has passed the written and oral tests prescribed for the branch of the service to which his unit belongs. (See Appendix III.)

For purposes of obtaining certificates in any branch of the service, the efficient service must have been performed in that branch.

Examinations.—Written examinations in connection with these certificates will be held twice in each year. The papers will be set and corrected by officers deputed by the Chief of the Imperial General Staff. (For syllabus, qualifying marks, dates, and instructions for carrying out the examinations, see Appendix III.)

CERTIFICATE A.

Eligibility, junior division.—A cadet of the junior division, whether belonging to an Infantry or to an Engineer contingent, will be eligible for certificate A, Infantry, only.

He will not be eligible to undergo the examination for certificate A unless he has been returned as efficient in two years (see par. 63), and attended at the annual camp (par. 58) at least once.

Masters enrolled as cadets under the provisions of paragraph 27 may attend the examination, subject to the same conditions.

Eligibility, senior division.—A cadet of the senior division may undergo the examination for certificate A at any time after he has completed one year's efficient service as laid down in paragraph 62.

A cadet joining the senior division, who has previously fulfilled the conditions of eligibility in the junior division (par. 67), may undergo the examination for certificate A, Infantry, at any time.

Grant of certificate, senior division.—Certificate A will not be granted to a cadet until he has been returned as efficient in two years, in one of which he must have performed 15 instructional parades (10 if a recruit) in addition to those laid down for trained cadets or recruits in paragraph 62.

Efficient service (but not in periods of less than a year) in the junior division will be allowed to count toward the grant of certificate A in the senior division.

CERTIFICATE B.

Eligibility to attend examination.—A cadet of the senior division will not be eligible to undergo the examination for certificate B until he has (a) passed the examination for certificate A in the same branch of the service; (b) completed one year's efficient service as laid down in paragraph 62.

Officers of senior division eligible to attend. University students who, having previously obtained certificate A, have been appointed to commissions on the unattached list of the Territorial force for service with a unit of the contingent of the university at which they are students, or have been seconded from a Territorial force unit for service with that contingent, may be allowed to attend examinations for certificate B (of their own branch of the service) held at that university.

Grant of certificate. A cadet will not be granted the certificate until he has a total of two years' efficient service, in one of which he must have performed 15 instructional parades (10 if a recruit) in addition to those laid down for trained cadets or recruits in paragraph 62.

Cadets having qualified in the examination for certificate B who take a commission in the Special Reserve of Officers before completing a second year's service will be granted certificate B and will enjoy the full advantages of that grant from the date of their commission.

Exemptions, certificate B.—Candidates for certificate B, who have passed in Group E of the final pass schools examination, will be exempt from the first two papers of the written examination for certificate B.

Cadets having qualified for certificate B, who, before completing a second year's service, are appointed to a commission in the Territorial force, will be granted the certificate and be entitled to the advantages conferred by that grant on completion of one year's service as an officer of a unit of the Territorial force.

Advantages conferred by certificates.—The following advantages are conferred on cadets, who, after obtaining one or both certificates, accept commissions in the Special Reserve of Officers or Territorial force or offer themselves as candidates for Woolwich, Sandhurst, or the Royal Army Medical Corps.

SPECIAL RESERVE OF OFFICERS.¹

Certificates.	Advantages conferred.
Certificate A: All arms, except Engineers and Infantry.....	A reduction of the probationary training by 4 months or 14 days, according as the normal period is 12 months or 3 months.
Engineers.....	A reduction of the probationary training by 2 months.
Infantry.....	A reduction of the probationary training by 1 month.
Certificate B: All arms, except Engineers and Infantry.....	A reduction of the probationary training, inclusive of that allowed for certificate A, by 8 months or 6 weeks, according as the normal period is 12 months or 3 months.
Engineers.....	A reduction of the probationary training, inclusive of that allowed for certificate A, by 4 months.
Infantry.....	A reduction of the probationary training, inclusive of that allowed for certificate A, by 3 months.
All arms.....	A gratuity of £35. ²

TERRITORIAL FORCE.³

Certificate A: All arms.....	To exemption from the whole or part of the examination for promotion to the rank of lieutenant.
Certificate B: All arms.....	To exemption from the whole or part of the examination for promotion to the rank of captain.

¹ For further details see regulations for the Special Reserve.

² Should an officer who has qualified in the examination for certificate B take a commission in the Special Reserve before he has completed the necessary efficient service (par. 72), he will be granted the gratuity.

³ For further details see regulations for the Territorial force.

CANDIDATES FOR WOOLWICH OR SANDHURST.

Certificates.	Advantages conferred.
Certificate A: Infantry.....	To receive 200 marks in the competitive examination held by the Civil Service Commissioners for entrance to those establishments.

CANDIDATES FOR COMMISSIONS IN THE NAVAL MEDICAL SERVICE AND ROYAL ARMY MEDICAL CORPS.

Certificate A: Medical.....	To receive 1 per cent of the maximum number of marks allotted to the compulsory subjects in the entrance examination.
Certificate B: Medical.....	To receive 2 per cent of the maximum number of marks allotted to the compulsory subjects in the entrance examination.

Lectures.—In order to assist cadets of the senior division in attaining the standard of proficiency required from a candidate for certificate B, courses of lectures on the subjects included in the syllabus will be held in universities. Attendance at these lectures will not count as parades for purposes of efficiency.

Names of lecturers.—The names of those whom the military committees of universities propose to invite to give lectures, together with the subjects of the lectures, will be submitted for the approval of the Chief of the Imperial General Staff.

IX. FINANCE.

PAY AND ALLOWANCES.

Officers.—Officers of the Officers Training Corps will receive the same pay and allowances and will be subject to the same conditions as other officers of the Territorial force.

University candidates.—A university candidate for a commission in the Regular forces who, before he commences the six weeks' attachment required of him, has been appointed an officer on the establishment of his university contingent Officers Training Corps, will be granted the outfit allowance, subject to the conditions laid down in the preceding paragraph. He will also be allowed to count the six weeks' attachment in lieu of the initial course, Territorial Force Regulations, but will not draw pay and allowances for more than four weeks of that attachment.

A university candidate who is appointed an officer on the establishment of his contingent Officers Training Corps, after he has commenced his six weeks' attachment, will have no claim to outfit grant or to pay and allowances for any portion of his attachment; the attachment will, however, count in lieu of the initial course.

REGULAR OFFICERS.

Adjutants, senior division.—Regular officers appointed adjutants to universities or to groups of universities will receive the rates of pay and additional pay laid down for adjutants of the Regular forces in the pay warrant and allowances as for adjutants of the Territorial force.

CORPS ALLOWANCES AND GRANTS.

SENIOR DIVISION.

Capitation grant.—A yearly capitation grant of £2 will be paid to each university unit for every “efficient” cadet on the strength.¹

Half capitation grant and greatcoat allowance.—A half capitation grant of £1 will be paid, in addition to the grant for each new “efficient” member enrolled in excess of the highest number for whom capitation grants have been drawn in any previous year. A greatcoat allowance of £1 will also be issued in respect of each member enrolled in excess of the highest number for whom this allowance has previously been drawn.

Grant for certificate B.—A grant of £5 will be made to a university unit in respect of each certificate B obtained by a cadet of that unit.² No individual can earn this grant more than once. The grant will be additional to any “efficiency” grant which a cadet may have earned for the year in question.

Additional grants.—Additional grants to any earned under the foregoing paragraphs will be made as follows:

Cavalry units: (a) A capitation grant of £3 5s. for each efficient cadet and sergeant instructor; (b) special camp allowance of 6s. 8d. daily for each officer or cadet not provided with a public horse, for whom a horse is maintained;³ (c) the regulation ration of forage in kind, or, when this can not be issued, forage allowance at current rates, as given in Army orders;³ (d) traveling allowance of 3d. a mile for officers’ horses, 2½d. a mile for cadets’ or draft horses (see par. 790, Territorial Force Regulations), to cover cost of conveyance of a horse for the double journey to and from camp, if the distance exceeds 10 miles.³

Artillery and Army Service Corps units: (e) A capitation grant of £1 for each cadet certified to be reasonably efficient in mounted duties, subject to the general conditions laid down in paragraph 745, Territorial Force Regulations.

JUNIOR DIVISION.

Capitation grant.—A yearly capitation grant of £1 will be paid to a school contingent for every efficient⁴ cadet over 15 years of age (16 in the case of schools in receipt of a parliamentary grant) (1) who is on the strength of the contingent on the 1st of October in the year in which the grant is claimed (other than cadets referred to in par. 101), or (2) who has left the school at the end of the previous summer term, provided that 50 per cent of those for whom the grant is claimed have attended camp of not less than 8 days’ duration during the year,⁵ and that the contingent is reported to be efficient by the inspecting officer at the annual inspection (see par. 64).

Infectious illness.—Should a school contingent, or a part of it, be prevented from fulfilling the condition regarding attendance at camp

¹ Grants will be paid within and in respect of the financial year in which the cadets are returned as “efficient.”

² This grant can not be claimed in respect of officers of a contingent who attend the examination for certificate B under the provisions of paragraph 71.

³ These allowances will also be paid in respect of officers of other units of the senior division who are entitled to the use of a horse.

⁴ This includes masters enrolled as laid down in par. 27.

⁵ Thus, in a unit with, say, 120 “efficients” under par. 63, if 60 attended camp, £120 would be earned; if 25 attended camp, £50 would be earned.

by reason of an infectious illness, this condition will be modified. Applications for modification will be addressed to the secretary, War Office, and will be accompanied by (1) a certificate from the medical officer in attendance at the camp to the effect that the contingent was prevented from attending camp owing to infectious illness; (2) a statement, certified by the officer commanding the contingent, showing the number of cadets over 15 (or 16) years of age (*a*) who were efficient on 1st of October, (*b*) who attended camp, (*c*) who would have attended camp but for the outbreak of infectious illness. The amount of the grant to be issued will then be assessed, and on authority will be forwarded to the officer commanding the contingent, who will attach to it his claim for the capitation grant.

Grant for certificate A.—A grant of £10 will be made to school contingents for each cadet who has obtained certificate A while a member of the school and is afterwards granted a commission in the Special Reserve of Officers or the Territorial force.¹

Capital grant to new corps.—A small capital grant to assist in meeting the initial cost of providing ranges, instruction, accommodation for arms, and uniform, may be paid to schools not hitherto in possession of a uniformed corps, according to their individual necessities, on their offer to furnish a contingent of the Officers Training Corps being accepted by the Army Council. The grant, when given, will take the form of an allowance per cadet; but no grant will be made in respect of cadets who are under 14 years of age, or, in schools in receipt of a parliamentary grant, under 16 years of age. The grants will be subject to audit and will only be made on a guaranty that the contingent, when started, will not be disbanded without reference to the Army Council.

SENIOR AND JUNIOR DIVISIONS.

Capitation grants under previous paragraphs may be claimed for every cadet who takes a commission in the Special Reserve of Officers or Territorial force, or, if a university candidate, in the Regular forces, provided that he has completed the requirements for efficiency for the year in which he takes a commission, or was returned efficient in the preceding year.

Services on which grants may be expended.—The services upon which the allowances granted under the foregoing paragraphs may be expended are as follows:

Providing and maintaining headquarters and drill grounds, and the general expenses connected with the administration of the contingent, including the hire of land, ranges and buildings, the repair of buildings, and orderly room expenses; care, cleaning, repair, and, where necessary, insurance of arms; providing and maintaining ranges; cost of supplying ammunition, clothing, equipment, and accouterments, engineer stores, stationery and postage; traveling expenses to and from inspection, tactical exercises, ranges, etc.; repayment of loans; horsing mounted units, including insurance of horses as necessary; camp expenses, including rations, fuel and light, pail-lasse straw, and general expenses, and railway and transport charges. Charges on account of the provision of water, latrine accommodation, and sanitary services generally in camps and for the hire of camping ground, when a camp is necessarily held on other than War Depart-

¹ This grant can not be claimed in respect of masters enrolled as laid down in par. 27.

ment land, will, however, be borne by Army funds. When such hiring is necessary the matter should be referred to the War Office, in order that the necessary action may be taken through the general officer commanding the command in which the camp is to be situated, who will arrange for the provision of such water supply and sanitary services as may be required.

Expenditure on the following services will also be allowed if, after the above charges have been provided for, such expenditure will not lead to the income for the year being exceeded:

Band expenses (where a band has been authorized), or the hiring of a band for a special occasion; prizes (not to exceed 5 per cent of the efficiency and proficiency grants combined).

X. UNIFORM, ARMS, EQUIPMENT, BOOKS AND MAPS.

All units of the Officers Training Corps will be uniformed.

Free issue, senior contingents.—Each cadet on joining the senior division will receive from his unit a suit of service dress, a service-dress cap, a pair of gaiters or putties, and a greatcoat, subject to the provisions of the contract referred to in paragraph 25. The sum of £2 toward the cost of the outfit will, in the case of cadets who obtain, or have already obtained certificate A, be paid from Army funds.

Deviations from authorized patterns.—No deviation from authorized patterns of uniform is permitted, and no articles of clothing or badges will be introduced without War Office approval.

Efficiency badge.—An efficiency badge may be worn by cadets shown as efficient in the last annual return. This badge will consist of a hollow diamond of white piping or embroidery one-eighth inch wide on scarlet cloth $2\frac{3}{4}$ inches long and three-fourths inch deep. It will be worn on the right forearm.

Part III.—TRAINING OF THE JUNIOR DIVISION, OFFICERS TRAINING CORPS.

It is expected that the members of the junior division, Officers Training Corps, will act as feeders for the senior division, and therefore a carefully prepared system of instruction is needed, so that work which has been accomplished in this division will not be repeated in the senior division.

Not the least important part of the training required of this division is the annual camp, which it is expected all members will attend.

The regulations issued are quite explicit, and the requirements are carefully and clearly drawn so as not to overtax the cadets. The following extracts are quoted to show the scope of the training:

Object.—The object of the annual camp is not to turn out an efficient brigade or four fighting units, but (a) to afford every cadet more advanced instruction in work in the field and in the duties in camp of a soldier than it is possible for him to receive elsewhere; (b) to give officers such practical training as will best help them to instruct the cadets of their respective contingents.

It should also be remembered that the training in camp is intended to play a leading part in fitting every cadet to become an officer.

Overworking of cadets to be avoided.—The superior keenness and intelligence of cadets of the Officers Training Corps may perhaps admit of their training being of a rather more advanced character than would be profitable to other troops whose opportunities for preliminary work are equally limited.

The commandant of a camp should not, however, be led by this superior keenness to make greater calls on the energy and vitality of the cadets than may reasonably be expected from boys of 15 to 16 years of age.

In public-school boys the breaking point of their energy is so difficult to discover that a wide margin of safety should be allowed.

Standard of previous training.—An outline of the standard of training to which it is desirable that contingents should attain is given later.

This outline is intended to be a guide to officers commanding in training their contingents in anticipation of camp and to the commandant in formulating his program of work.

Guide to the program of work in camp.—The program of work, based on the standard of previous training referred to will be left to the discretion of the officer appointed to command a camp, but in drawing it up consideration should be given to the following points: (a) Ceremonial parades should be as few as possible; (b) instruction should be as progressive as is possible in the few days available, the company being the unit of instruction; (c) brigade field days should not be held until cadets have had an opportunity of being thoroughly exercised in the details of attack and defense under their battalion commanders; (d) minor tactical schemes set by battalion commanders should often take the form of the questions set in the examination for certificate A.

Explanation and criticism of tactical exercises.—Criticism is often the best means of instruction, and no exercise should be brought to a conclusion without a careful criticism being delivered on the way it has been carried out. Such criticism may, however, lose much of its value unless ample time has been set aside before the commencement of an exercise to enable its idea and object being thoroughly discussed and explained to the cadets.

Special classes.—Signaling should receive encouragement as being possibly of value in the future to the Territorial force.

It is not considered desirable that special classes should be formed during camp for the training of cyclists and scouts, as cadets so employed would miss a great deal of valuable instruction with the company. The employment and training as scouts of cadets specially selected for their aptitude may be left to the discretion of battalion commanders.

Special lectures.—Advantage should be taken of the gathering of cadets in camp to obtain the services of carefully selected officers of the Regular Army to lecture on subjects of the following nature: (a) Objects of the Officers' Training Corps; (b) military forces of the Empire; (c) national duty; (d) the art of command; (e) discipline, loyalty, and example.

Reports.—As soon after the break-up of camp as convenient commandants are requested to forward to the director of military training a report giving information on the following subjects: (a) Scale of parades and details of work done; (b) his opinion as regards the general efficiency of the cadet; (c) weak points in the system of instruction which the training in camp has brought to light; (d) his recommendations as to the points to which special attention should be paid during the following 12 months; (e) any points connected with the administrative arrangements made for the camp; (f) the state of efficiency of the sergeant instructors; (g) any other points which he considers it desirable to bring to notice.

A report by the senior medical officer should be attached to the above, dealing with all matters concerning the health of the cadets.

Equipment and clothing.—Officers commanding contingents are responsible for the provision of the following articles of equipment and clothing for cadets attending the annual camps:

(a) For each tent—messing: Two dishes; 1 carving knife and fork; 1 salt cellar (enamel); 1 pepper pot (enamel); 1 mustard pot (enamel); 1 can for mineral water; 1 bag for carrying bread; 1 ventilated box for reception of food; utensils for carrying butter, jam, etc. Furniture and cleaning materials: One looking-glass; 1 No. — board for insertion in ground; 4 boot brushes; 2 tins of dubbin; 1 oil can and tow for cleaning rifles; 1 tent hand brush; cleaning materials for uniforms; dusters, swabs, and tea cloths. The above articles should be carried separately in two extra kit bags.

(b) For each cadet—messing: Two plates (large and small); 1 mug (enameled); 1 knife, fork, and spoon. Clothing: One complete uniform (including great coat); 1 second uniform or plain clothes; 2 pairs of boots (black); 2 flannel shirts; 4 pairs socks, plain woolen; 1 flannel sleeping suit; 2 towels; 1 brush and comb, toothbrush; 1 soap; 1 kit bag of military pattern, clearly labeled with name of owner and school; 1 bed rope (cord 12 feet long).

Ammunition.—Officers commanding contingents should take to camp blank ammunition at the rate of not less than 60 rounds per cadet. They will be responsible for the collection and care of their own empty cases.

Infectious diseases.—At least 14 days before the commencement of camp, officers commanding contingents will notify the camp senior medical officer, through the camp secretary, of all cases of infectious diseases which have occurred at the school during the preceding fortnight.

This report will be accompanied by a letter from the school medical officer, who is requested to give full details of the disease and precautions taken, and to state definitely his opinion as to the course to be pursued as regards the attendance of the cadets at camp.

The camp senior medical officer will give full consideration to this report and the views expressed therein and decide what cadets, if any, should be debarred from attending camp, and inform the officer commanding the contingent of his decision.

The name and address of the senior medical officer appointed to the camp will be forwarded early by the War Office to the camp secretary, who will notify all contingents concerned.

AN OUTLINE OF THE STANDARD OF TRAINING TO WHICH IT IS DESIRABLE THAT CONTINGENTS SHOULD ATTAIN BEFORE REACHING CAMP.

It is recognized that all contingents have not equal opportunities for instruction, but it is hoped that by systematic and progressive methods of training the difficulties, due to varying circumstances, may be, to a large extent, overcome.

It is by no means intended that officers commanding contingents should limit their instruction to the subjects mentioned in the following pages, but it is hoped that contingents will have at least a thorough working knowledge of those subjects.

N. B.—The points referred to in this appendix should be studied in connection with the remarks contained in the periodical reports on the examination for certificates A and B.

A. OFFICERS.

All officers:

1. Should have a thorough knowledge of company and squad drill.
2. Should know the organization of a battalion, company, and section.
3. Should understand what is meant by march discipline.
4. Should understand what is meant by scouting.
5. Should clearly grasp the general principles of attack and defense, and be able to lead a company in attack and defense.
6. Should understand the general principles governing the employment of outposts, and be capable of directing a company on outpost, whether acting alone or in conjunction with other companies.
7. Should understand the general principles governing the employment of advanced guards, rear guards, and flank guards, and be able to lead a company employed in any of those capacities.

NOTE.—When instructing, officers should remember that the simplest orders and instructions are the best. Company training should not be sacrificed to spectacular field days.

Stress should be laid on, and continual practice given in, fire direction, fire control, and fire discipline, and it should be remembered that fire and maneuver must be taught together.

B. SECTION COMMANDERS.

8. (a) Section commanders and all other noncommissioned officers should have a thorough knowledge of company and squad drill; (b) all noncommissioned officers should know the organization of a company and section; (c) all noncommissioned officers should know what is meant by march discipline; (d) section commanders should be trained by continual practice to appreciate the meaning of fire direction, fire control, and fire discipline. Every opportunity should be given them to handle their sections, and they must receive individual instruction as to the manner in which they should give verbal orders or instructions to their squad and patrol commanders or to individual men.

9. (a) They should understand the methods of extending and closing, and should know the correct words of command as laid down in "Infantry training"; (b) they should be acquainted with all signals and whistle blasts; (c) they should be taught to appreciate the importance of cover, and be instructed as to how best to take advantage of it when firing; (d) it should be impressed upon them that the unit of fire will usually be the section or squad; (e) in connection with scouting it should be made clear to section commanders, as to all noncommissioned officers, that whether they are employed in command of a scouting party or of a patrol, their primary duty will be to obtain information. They should be taught the duties of scouts as laid down in "Infantry training," stress being laid on the transmission of information, as well as on its acquisition.

10. (a) The general principles which govern attack and defense should be made clear to section commanders by lectures or otherwise; (b) the reason why Infantry adopt different formations in different circumstances should be explained to them,

and they should know what the usual formations are; (c) they should clearly understand their responsibility as section commanders with regard to maintenance of direction (in the attack), fire control and fire discipline, cooperation with the other portions of their own company or with other companies with particular reference to covering and supporting fire, the intelligent use of cover, and intercommunication; (d) in the attack all attempts to dash wildly against the enemy, before fire superiority has been gained, must be stopped.

11. (a) Section commanders should be made to understand the object of outposts and how that object can best be attained; (b) they should know the way in which a company on outpost is usually distributed; (c) they should know the object of and how to handle the covering troops sent out to cover the posting of the pickets; (d) they should know the duties of a picket commander and be able to post and tell off a picket; (e) they should know the duties of a reconnoitering patrol sent out from the picket and be able to lead one. They should be able to post a sentry and know what his duties are.

12. (a) Section commanders should know the reason why a force on the move is always covered by protective troops, what terms are applied to these protective bodies, and what their respective functions are; (b) they should know the distribution of a company when employed on advanced, flank, or rear guards; (c) they should be able to appreciate the importance of keeping up communication between the component parts of a protecting company and between that company and the main body; (d) they should understand the use of connecting files.

C. RANK AND FILE.

13. (a) All cadets should have a thorough knowledge of the organization of a section and a company; (b) the importance of march discipline should be impressed on all ranks, and should be enforced at all times until it becomes second nature to all cadets; (c) bearing in mind the object of the Officers' Training Corps, all ranks, and not only section commanders and candidates for certificate A, should be given opportunity of handling small parties of men.

14. (a) It should be impressed upon all cadets that the unit of fire is usually the section or squad, and that, therefore, they must primarily look to the section or squad commander for control. It should be brought home to them, however, that in action the control of even a section may become a matter of great difficulty, and therefore when control is lacking it is their duty to act on their own responsibility; (b) cadets should understand the meaning of fire control and fire discipline. Briefly, the senior officer or noncommissioned officer directs the fire, the subordinate commanders control it in accordance with his instructions, and the implicit obedience to these orders for direction by men is fire discipline. Fire direction includes all such points as the objective, range, rate, and nature of fire.

15. (a) Attack: Only practice in the field will accustom the rank and file to their rôle in attack and defense; (b) in early instruction the attack should be divided into stages, and every stage should be carefully criticized before a fresh one is commenced—i. e., a commander should not pass on to a second stage until he is sure that every mistake has been pointed out and the reason for the criticism understood. Finally, when every stage has been gone through in this manner, the attack can be carried out once more, straight through without any unnatural check, the faults being again criticized at the conclusion. (c) Defense: In defense the chief points on which stress should be laid for the benefit of the rank and file are fire discipline, the use of cover, and patrol work.

16. Cadets can not be expected to carry out efficiently their outpost duties unless the object of outposts, and generally how this object is attained, be first explained to them. The instructor should explain how a company detailed for outpost duty is usually told off, and should state what duties devolve on the various bodies into which it is subdivided.

With the above knowledge as a basis the cadet should find it easier to understand those details of outpost duty which chiefly affect him—i. e., duties of covering troops, the kind of sentry to be employed, the posting and relief of sentries, the duties of sentries, and patrol duties.

17. By means of simple lectures cadets should be given a clear idea of why a force on the move is always covered by protective troops, what terms are applied to these protective bodies, and what their respective functions are. Unless they understand these things they will not be able to appreciate their own rôle.

Their instruction may then be limited to the part they themselves would have to play when the company to which they belong is employed as an advanced guard, rear guard, or flank guard.

Stress should be laid upon the responsibilities and duties of individuals employed as connecting files.

THE AUSTRALIAN SYSTEM OF
NATIONAL DEFENSE.

THE AUSTRALIAN SYSTEM OF NATIONAL DEFENSE.

INTRODUCTORY NOTE.

In view of the increased interest of the American people in the subject of national defense and the many inquiries in regard to the system adopted by the people of the Commonwealth of Australia as their solution of the question, it has seemed appropriate to furnish at this time a description of the Australian system.

The following pages have been compiled from documents on file at the Army War College and consist of:

Part I. Extracts selected from an article by Lieut. Col. J. G. Legge, C. M. G., printed in the Army Review, January, 1913.

Part II. Notes of lectures delivered by the same at the special camp of instruction at Albury, New South Wales. Published officially in Australia in 1911.

Part III. Extracts selected from the report of an Inspection of the Military Forces of the Commonwealth of Australia, by Gen. Sir Ian Hamilton, G. C. B., D. S. O., dated Hobart, Tasmania, April 24, 1914.

Part I is a brief outline of the system. Part II is an explanation to the 400 Australian area and staff officers of the system inaugurated by the defense act, 1903-1910. Part III is a portion of a report on the system by Gen. Hamilton after it had been in operation three years.

This compilation gives a comprehensive review of the origin, development, and present status of Australian defense. Written by British or Australians, the point of view will doubtless also be of particular interest to Americans.

Part I.—AUSTRALIA AND THE UNIVERSAL TRAINING LAW.

By Lieut. Col. J. G. LEGGE, C. M. G.

[Reprint from the Army Review, Jan., 1913.]

Defense act No. 15, 1909, section 125: "All male inhabitants of Australia (excepting those who are exempted by this act), who have resided therein for six months, and are British subjects, shall be liable to be trained, as prescribed, as follows:"

Thus did the Australian Parliament, newly assembled after a general election at which defense was a leading question, place on the statute book, without any party vote, its determination to take the defense of its shores seriously.

The training prescribed was not very extensive, and, during the following two years of preparation for actual work, while equipment and clothing were being provided, the Government, stimulated by the advice of Lord Kitchener, obtained the passage of an amending law (1910) now in force, which extended the number of days required. Training included both the naval and military services, and it was provided that the Australian Navy should have first choice of men,

as it was recognized that men of special occupation and trades were required to build up a really useful naval reserve. There are now over 3,000 naval senior cadets in training at the various ports, all specially selected, and these, on attaining the age of 18 years, pass into the Militia Naval Reserve for a period of seven years' training. In time of war this should form a valuable reserve for the Australian Navy, which is, of course, manned by a regular personnel at all times.

In any account of the military forces of Australia it must not be forgotten that the difficulties are probably greater and certainly of a different character to those of a European country. The area is very great, about 3,000,000 square miles, or three-quarters that of Europe, its length is about 2,000 miles from east to west, and its coast line more than 12,000 miles. Over this area the population of 4,500,000 is unequally distributed, the greater portion living within 300 miles of the eastern, southern, and western coasts, and one-third of the total being within the five principal cities on the coast.

The system of training now brought into force in Australia is not new, but simply an extension of the old cadet and militia organizations to include all those who are physically fit instead of limiting membership to "volunteers." Much the larger part of the new conditions has already been in existence for over 20 years, and is well known to the general public in Australia, but in writing for those who are unfamiliar therewith it is advisable to commence by outlining briefly the older methods and organizations.

PERIOD 1901-1911.

During the first 10 years of this century, also the first 10 years of the federation known as the Commonwealth of Australia, the troops of the six States were taken over, their organization, training, and regulations made uniform, and their equipment and clothing improved under Lieut. Gen. Sir E. T. H. Hutton, K. C. B., K. C. M. G., and, subsequently, under the orders of the Military Board of Administration.

The defense force contained very few Regulars, their numbers being limited by reason of expense to those required for duties of administration and instruction, and to provide a first relief in the manning details of the defended ports. The troops were, therefore, almost wholly militia, and their units were maintained on a low-peace establishment, but with full numbers of officers and sergeants. In war, the peace establishment of about 25,000 would have been filled up to 50,000 by the absorption of those enlisted as reservist members of the rifle clubs. In round numbers, the several branches of the service were:

REGULARS.

Administrative and instructional staffs of officers, warrant and noncommissioned officers.....	350
Fortress troops, Artillery and Engineers.....	1, 150
Total, permanent forces.....	1, 500

MILITIA.

Units of citizen troops, officers of the unattached list and reserve.....	23, 000
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RESERVES.

Members of rifle clubs.....	55, 000
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The militia were trained much as the Territorials in Great Britain, pay being provided at the rate of 8s. per day for privates, and other ranks in proportion, for 16 days per annum. Complete units were organized in the larger centers, but elsewhere detachments raised in many small centers formed light horse regiments or infantry battalions. Eight days of the training were, if possible, held in the annual camps, the remainder being broken up into night drills, counting as quarter days and half days, usually Saturday afternoons. Public holidays were sometimes utilized as whole day trainings. To be "efficient" a militiaman had to attend the equivalent of not less than 12 days, including musketry.

As with the Territorials, however, difficulties arose from the nature of the men's employment; some could not attend the annual camps, others had to resign on moving to another district, and in practice the officer commanding a squadron or company found his small peace establishment very small indeed when he came to count up only those having more than two years' service. In some units—Artillery and Engineers—an additional nine days' pay was provided during the last few years, for the extension of their camp training.

The reserves in the rifle clubs had among them many who had been trained in the militia, but as reservists their only training was a short annual musketry course (compulsory) and their voluntary rifle club practices.

Nor must we forget the cadets, whose numbers were seniors 12,000 and juniors 31,000, who formed a useful feeder to the militia, senior cadets of 17 years of age being allowed to transfer. Arms, equipment, and ammunition were provided free, instructors paid by the Military Department, and a small capitation grant also made. In most cases, however, parents were required to assist in the provision of uniforms. It is probably the growth of these miniature battalions, and the unsatisfied desire of many poorer lads who could not join, that have helped to smooth the way for universal service, more especially as it was limited to senior cadet training in its first year of operation.

UNIVERSAL TRAINING, 1911.

The Australian defense act of 1903 was amended December 13, 1909, introducing a universal liability to naval or military training, and this was extended by a further amending act December 1, 1910. The operation of the new statutes was proclaimed by the Governor General to come into force on January 1, 1911.

By this law all male inhabitants, resident for six months in Australia, must be registered under the act in January of the calendar year in which they attain the age of 14 years. Those who would have been so liable if resident in Australia, but who arrive at a later date, must register six months after arrival.

Of those compelled to register, only such as are British subjects are required to undergo training, and a number also of these are exempted for various reasons. Those liable to service must pass through the various trainings prescribed by the regulations for a period of 12 years, together with a course of preliminary work for

two years prior to registration. The distribution of the liability is as follows:

Rank.	Age.	Service.	Training.
	<i>Years.</i>	<i>Years.</i>	
Junior cadets.....	12-14	2	Annually: 90 hours.
Senior cadets.....	14-18	4	Annually: 4 whole day, 12 half day, and 24 night drills (quarter days). ¹
Citizen forces (militia).....	18-26	8	Annually: In first 7 years drills equivalent to 16 whole days, of which at least 8 must be in camp. ²

¹ Variations are permissible, provided the total remains the same.

² Artillery and Engineers (as well as those allotted to the naval forces) must train for 25 days annually, of which 17 days must be in camp. In the eighth year militia are required only to attend a registration or muster parade.

* * * * *

The peace organization and allotment of units to areas has, of course, been based on the future war organization of the 128,000 militia. These will, as advised by Lord Kitchener, supply 93 battalions of Infantry, 28 regiments of Light Horse, 56 batteries of Field Artillery, and the necessary units of Artillery, Engineers, Army Service Corps, Army Medical Corps, and departments for divisional troops and defended ports.

By far the largest part of the new force is Infantry, and the territorial organization has therefore been based on the battalions. All that part of Australia not exempted from the operation of the act is divided into areas, each of which will supply approximately equal numbers of militia. At present there are 92 of these, and they are known as battalion areas. For peace training and administration these are further subdivided into two training areas (three in country districts). The contiguous battalion areas are grouped by fours into brigade areas, each supplying an Infantry brigade, together with a varying proportion of provisional or fortress troops. The Light Horse units are raised in the territorial areas found most suitable, chiefly in country districts.

The senior cadets in each battalion area are also organized in battalions, and trained under the same staff as the militia.

The training of and administrative work in connection with the units of the militia and senior cadets would be too much to expect of the citizen officers of those units, the juniors of whom require a good deal of training themselves, and especially so at the present time when the new force is coming into existence and promotion is rapid. It is for this purpose that the administrative and instructional staff (Regular) was created in the past and largely increased during the last few years.

Over 400 warrant and noncommissioned officers of this staff are allotted to the brigade and battalion areas as instructors. One officer is allotted to each brigade area as brigade major, with a junior as assistant, and each training area will also have eventually a Regular officer as area officer. Pending the supply of sufficient Regular officers, a number of militia officers have been temporarily appointed area officers; they are required to give only part of their time to the work and are paid £150 (\$750) per annum. It will be over three years hence before the first graduates of the Royal Military College will commence to take up these positions.

The instructional staff, apart from their administrative duties in the areas, are required to instruct in both Light Horse and Infantry training, and provision is made for technical training of the militia by increased personnel in the permanent units and cadres. The Royal Australian Field Artillery and the Royal Australian Garrison Artillery supply instructors to the militia artillery units, and similarly members of the regular Engineer, Army Service Corps, and Army Medical Corps cadres for corresponding units.

I propose now to examine separately the three stages of training required of boys and young men in Australia. Their objects were, first, in the junior cadets to systematize and improve the school training, between the ages of 12 and 14 years, and so produce a better physical development, especially in the city-bred boys; secondly, between 14 and 18 years, while still continuing the physical development, to commence a general military training in the senior cadets, that should be useful and in part a substitute for recruit instruction; and, thirdly, between 18 and 25 years, to train, organize, and discipline a force with real fighting value.

JUNIOR CADETS.

Throughout Australia primary education is compulsory and free. In most of the States children must remain at school up to 14 years of age, and this will shortly be universal. State schools are to be found even in thinly populated districts, and they are attended by three-fourths of the children of the country. The other one-fourth attend "private" schools, the majority of which are maintained by the churches. To some extent physical training had been conducted in most of the schools for many years, but not always in an efficient manner. Young as Australia is, the effect of the crowding of population in the large cities has commenced to show results in a marked physical difference between country and town lads, for one city alone, Sydney, is approaching a population of 700,000, and Melbourne has over 500,000. The Commonwealth Government has no authority over education, which is a function of the State Governments, but it has the power to require training for military purposes. Under the former voluntary system there were 30,000 cadets in the schools, hence the naming of this part of the scheme "Junior cadet training," notwithstanding that it is only military in the sense of being a preparation for military work. Many of those who have to train will fail to "pass the doctor" when they come up for senior cadet training, or, later on, passing into the militia; but the cost of the work will not be lost, for it must have its effect also on the race. Both in junior and senior cadet training the medical examination is simply aimed at exempting from all or part of the work those boys who would suffer injury thereby.

The Commonwealth Government was prepared, if necessary, to carry out this training, but it was recognized that it would be better that it should be done in the schools. Having no power to legislate so as to throw the duty on the schoolmasters, it was provided that training by them should be accepted as sufficient compliance with the act subject to inspection by Commonwealth authorities, and grants were made to all schools complying therewith. All the schools are now conducting the training and special military instructors are hold-

ing schools of instruction, at which school-teachers can attend and obtain certificates of proficiency. The act requires 90 hours per year to be devoted to the work, including:

(a) Physical training, not less than 15 minutes per day. (b) Marching drill (practically Infantry squad drill), and any two of the following subjects: (c) Miniature rifle shooting; (d) swimming; (e) running exercises in organized games; (f) first aid.

* * * * * *

SENIOR CADETS.

On July 1, in the year in which he attains the age of 14 years, the senior cadet is given his uniform and "Record book," told off to a company, and allotted his arms and accoutrements. He becomes subject to military discipline and is made to recognize that he forms part of his country's military system. The first training commenced on July 1, 1911.

Companies are 120 strong, with three officers, five sergeants, and four corporals, but may be of less strength in smaller localities. All the companies in a battalion area form one battalion, however many there may be, the training being essentially "company" and not "battalion" in its character, and the battalion only appearing as a whole on a few ceremonial occasions, when it may temporarily be formed as two. The battalion staff is consequently limited to a commanding officer and adjutant. Senior cadets still attending school may be formed in special companies at their schools, instead of joining those in their residential area. This is general in the case of grammar schools, and the battalions of the areas in which they are situated are often very large. As, however, the battalions are training, not fighting units, no harm is done, and the system has many obvious advantages.

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TRANSFER TO THE MILITIA.

Toward the end of the senior cadet's fourth year of training, i. e., in the year in which he reaches 18 years of age, he will be brought before the medical officer of the training area, and, after examination, be classified as either (1) fit, (2) conditionally fit, (3) temporarily unfit, (4) unfit, or (5) not substantially of European origin or descent.¹

* * * * * *

THE MILITIA.

Until July 1, 1912, service in the militia of Australia was voluntary, the period of engagement three years, with the right of resignation under certain conditions; "efficiency" depended upon attendance at a minimum number of parades, equal to 12 whole days; the only penalty for nonefficiency was discharge, and commissions were granted to those in or outside of the force by selection, without any previous qualification.

While the old militia units are continuing in existence, much in form as before, and new units created, which will include many of the

¹ Class (5) and those who have religious objections are to be allotted to noncombatants' duties as far as possible.

old members, a radical alteration in their constitution has been effected. Old members will not ordinarily be reengaged after completion of their current engagement; noncommissioned officers may reengage; all new members will come in annually at one date, July 1, and, when their 8 years' service is complete, will go out together on June 30; for the first 7 years all must train not less than 16 whole days (some more), and, further, obtain a real classification of "efficient" at the annual test, or suffer the penalty of longer service, and all promotions are to be from the ranks and based on merit.

On July 1, 1912, 19,000 senior cadets of the 1894 class became liable to training in the militia, and larger numbers may be expected in future years. Their absorption in the new organization and the development of the latter will be detailed later.

The length of training required in the militia is, annually, 16 whole days or their equivalent in shorter parades, but not less than 8 whole days must be attended in the annual camps or maneuvers. For Artillery and Engineer services the liability is more extended, being 25 whole days, of which not less than 17 must be continuous training. As in the senior cadets, additional parades are also provided for, and any militiaman absent without leave from a statutory parade can only become efficient by attending two additional voluntary parades. Efficiency, subject to attendance at the required minimum of parades, is again determined annually by a practical test.

Musketry, on the same general lines as in the British Army, is carried out on Saturday afternoons during the year, nearly every training locality having rifle ranges available within a few miles.

In the mounted services the question of horses is of interest. The Light Horse include only those who can provide horses for themselves, and if they cease to comply they are transferred to dismounted units. The Field Artillery are supplied with Government horses obtained and maintained especially for the purpose. During the last two years nearly 2,000 horses were purchased, and the establishment will in future be increased by about 300 per annum, apart from replacements of cast horses. When not required by the militia batteries, these are available for the work of schools of instruction or other mounted units. For arms other than Light Horse and Field Artillery horses are hired when required. So far there has been no difficulty about obtaining a suitable type, for Australia has a stock of 2,250,000 horses of all classes; but it is proposed in the future to utilize the cast mares for breeding purposes at Government establishments. Possibly, also, a large Government breeding station will be established in the northern territory.

* * * * *

CONCLUSION.

Prior to the year 1909 the feeling had been steadily growing in Australia that 25,000 militia were insufficient, even for local defense alone. The Federal Government, however, notwithstanding a large and expanding revenue, had so many heavy outgoings, all absolutely necessary in the expansion of a young country, that it was impossible to expand the military forces on the same lines as then in force. To expand the numbers to 120,000 would have cost at least £3,500,000

annually, even if it were possible to obtain the numbers under the old conditions by voluntary enlistment. Nor would the increased numbers have been productive of greater efficiency. Soldiering would still have operated pretty often to the disadvantage of the patriotic soldier in respect to obtaining employment, men would have lost their jobs for going to camp even oftener than they did in the past, resignation would probably have come oftener, and the average length of service would have been less. Altogether, the result would not have been worth the expense.

To wipe out the citizen forces, which cost so much for the result attained, and increase the Regular forces to the new war establishment would certainly have been possible, and would have given a very good fighting machine, but the spirit of democracy would have strongly objected, and the probable cost, nearly £15,000,000, ruled such a scheme out at once.

Between these two extremes the new system has been evolved. The permanent troops have been increased considerably, they will furnish the administrators and instructors and a first relief for the fighting units in the forts, and their officers will be highly trained men from the Royal Military College.

* * * * *

Summing it all up, those who have had the responsibility of introducing the operation of an unfamiliar system were prepared for greater difficulties, and the result has been, on the whole, quite as good as could be hoped for the first year. From now on new factors will operate. Those rejected by the medical officer will not be glad of their exemption, poor lads, and that will tend to create the converse sentiment. Those who are found to be criminals or bad characters will be brought before the magistrates for an order (under the act) prohibiting them from military service. Those who can not produce a record book with a "clean" service sheet will be debarred from any service under the Commonwealth Government. The public-service commissioner already requires its production. Later on we shall find private employers also realizing that good soldiers are also the best servants, and a good record book becoming a distinct recommendation for employment. Lastly, dormant though it may be in appearance, and obscured by the petty worries of earning a crust, patriotism is not by any means dead in Australia, and when Sydney, the oldest of the Australian cities, saw the first fruits of universal training, 19,000 senior cadets with only six months' training, all raised in the one city only, and marching steadily past the Governor General, the numbers, larger than ever seen there on parade before, the uniformity and the steadiness of the battalions woke the people up and they were proud of their sons.

Part II. UNIVERSAL TRAINING IN THE NAVAL OR MILITARY FORCES OF THE AUSTRALIAN COMMONWEALTH.

[Notes of lectures delivered by the quartermaster general (Lieut. Col. J. G. Legge, C. M. G.) at the Special Camp of Instruction at Albury. Published officially in Australia in 1911.¹]

CONTENTS.

I.—Preface—Extracts from a speech by the minister of defense.

II.—*Notes of lectures.*—Introductory—The proposed organization—Allotment of staff—Duties of staff—The Military College—Citizen's liability to naval or military training—Exemptions from training—Registration—Inspection and medical examination—Record book—Numbers—Allotment to arms—Senior cadets: Organization, training, leave, absence, transfers, schools, evasion of service, noncommissioned officers, officers, uniform, equipment, financial considerations, discipline—Junior cadets—Existing citizen forces—The new citizen forces—Reserves—Higher training—War.

I. PREFACE.

These lectures were intended to explain the new system of universal training and the practical administration of its provisions to the 400 area officers and staff instructors, who are more concerned than any others with the details of the amended defense act.

The lectures were chiefly explanations of the reasons for the regulations and instructions about to be issued and advice as to the best method of carrying them out in practice. They are not to be taken or quoted as authorities. For such, the actual sections of the act, regulations, or orders of the military board must be strictly followed. The minister for defense has ordered that these notes be printed and published for the use of other members of the defense force.

J. G. LEGGE, *Lieutenant Colonel.*

EXTRACTS FROM A SPEECH BY THE MINISTER FOR DEFENSE.

The minister for defense, Senator G. F. Pearce, visited the training camp at Albury on two occasions; and on his last visit was welcomed by a large assembly of citizens. In the course of his speech the minister said:

Australia, all will admit, is a country worth having. Yet it is the only continent owned by one people and has never been stained by bloodshed in war. If we mark on a map of the world all the countries stained with blood, Australia will be the only white spot. It has been our privilege singularly among all the peoples of the world that we have been exempt from the horrors of war. What guaranty is there that this will continue?

Australians are a peaceful business people who do not want war; but can we get others to think the same? There are nations not decadent who have defeated some of the so-called great powers of the world. History teaches that every country that becomes a conqueror grows land hungry and ambitious, and so Australia must prepare.

While we believe the teaching of Christianity, that arbitration is the proper means of settling disputes, we must remember that the two parties must first agree to arbitrate. Are we prepared to arbitrate on a white Australia? Of course not. If, then, we are not prepared to arbitrate, the only logical alternative is to be prepared for war.

Having decided this, we must have the best system of defense, the best training it is possible to get. Our army of defense must not be simply the aggregation of an armed mob, but men fit to stand up against any troops that may come along.

As regards the cost of the scheme, this system of national insurance is but a mere bagatelle compared with the loss that would be caused by an aggressive cruiser coming

¹ Since these lectures were published in 1911, a few alterations have taken place in numbers, hours of drill, and in some minor details. Attention has been called in footnotes to the more important of these changes; they do not, however, affect the value of the lectures as an exposition of the system of universal training now adopted in Australia and of the spirit and principles on which it is based.—Ed.

to these shores. And, further, the horrors of war can not be counted in pounds, shillings, and pence. If we are going to have a defense scheme worth having, we must have the best, and be prepared to pay for it.

Australia has had differences of opinion, but this camp typifies Australia actually united. The area officers will on Thursday be dispersed to all parts of Australia, and in January the young men will record their names for military service and will realize that there is something more serious in life than cricket and football. It will enable them to realize that citizenship carries with it not only privileges but responsibilities.

Organization in business, or in any other sphere of human activity, is the secret of success. In this defense scheme we have a means of organizing the nation. I appeal to you as parents and citizens of Australia to use your influence and give your best assistance in making our scheme a success.

II. NOTES OF LECTURES ON UNIVERSAL TRAINING.

INTRODUCTION.

1. The defense act, 1903, provided for both naval and military forces, and under it the forces raised in the several States were consolidated into Commonwealth forces. The amending defense act, 1904, transferred most of the powers of the general officer commanding the military forces to a newly constituted body, called the Military Board, organized on the same lines as the Army Council in Great Britain. The two acts are known as the defense act, 1903-1904.

2. It appeared to the Hon. (now Sir) Thos. Ewing, minister for defense, in the year 1908, that the present system of defense did not give Australia sufficient numbers in its citizen forces in proportion to the expenditure involved, that the standard of training was very unequal, and that an excessive proportion of the troops consisted of men of very short service, who resigned before obtaining a sufficient standard of proficiency. For these reasons, among others, an amending bill was prepared, with the object of introducing universal training, which, however, went no further, owing to a change of Government.

3. In 1909 Senator Pearce prepared a further scheme with the same object, which was again frustrated by another change of Government.

4. During the same year the Hon. J. Cook introduced an amending bill, varying somewhat from the preceding proposals, which became the defense act, 1909. This, when consolidated with the former statutes, is known as the defense act, 1903-1909.

5. By this act the principle of universal liability to be trained in the defense force in time of peace was made law for the first time in any English-speaking community.

6. The act of 1909 prescribed senior cadet training from 14 to 18 years, equivalent in duration to 16 whole days annually, but divided into convenient parades throughout the year, and adult training in the citizen forces from 18 to 20 years, equal to 16 days annually, of which 8 must be in camp. The existing citizen forces were to be separately maintained, as at present.

7. At the end of 1909 and beginning of 1910 Field Marshal Lord Kitchener visited Australia on the invitation of the Government to report on the defenses of Australia. His recommendations were made public in the form of a memorandum, in which he advises that universal training should be extended up to the twenty-sixth year.

8. A further change of Government having taken place early in 1910, Senator Pearce, the present minister for defense, introduced a second bill, which was passed by Parliament before the end of the year. This defense act, 1910, is for the purpose of amending the previous acts, and together with them forms the defense act, 1903-1910. It adopted in a strengthened form the recommendations of Lord Kitchener.

9. The operation of the clauses requiring universal training was proclaimed by the Governor General (Gazette of 28th September, 1910) to commence on 1st January, 1911.

10. The comparative cost of the various systems may be obtained by dividing the maximum number proposed to be in training at the one period into the maximum annual expenditure for that period. Calculated thus, the average cost per annum per adult soldier in training in organized units is:

Under the system hitherto in force.....	£32
Sir T. Ewing's scheme.....	7
Senator Pearce's first scheme.....	22
Hon. J. Cook's scheme.....	26
Lord Kitchener's proposal.....	16
Senator Pearce's proposals, now being carried out.....	17

It may be mentioned that the annual cost of £7 did not include any pay for the compulsory periods of training.

THE PROPOSED ORGANIZATION.

11. The population of Australia in 1911 is about $4\frac{1}{2}$ millions, of whom there are, on the basis of the last census, 188,000 males of 14 years and under 18 years and 295,000 males of 18 years and under 25 years.

Many of these will be found in districts too thinly populated to admit of training without excessive expenditure, or living at too great a distance from the several training places. A large number also will be found medically unfit for training.

Upon the figures at present available it is estimated that we shall have in training, when the scheme is in full operation, 100,000 senior cadets and 112,000 citizen soldiers.

12. An army is organized by considering the numbers available, the length of service laid down by law, and the proportion of the various arms required.

The proposed organization for Australia, varying only a little from that of Lord Kitchener, as found necessary on closer examination of the numbers available, includes 93 battalions of Infantry, 28 regiments of Light Horse, and 56 batteries of Field Artillery, and a due proportion of Engineers, Army Service Corps, Army Medical Corps, troops for forts, and other services.

13. By far the largest part of any army is Infantry, and the territorial organization of Australia is therefore based upon the Infantry units.

All that part of the Commonwealth not exempted by proclamation from the operation of the act is divided into areas containing approximately equal populations in the portions in which training can be carried out. There are 93 of these, and they are known as battalion areas.

Each will contain a complete battalion of Infantry, and also larger or smaller numbers of one or more other arms of the service. For convenience in training and administration the battalion areas will each be divided into two or three training areas.

The battalion areas are also grouped by fours into brigade areas, each supplying an Infantry brigade of four battalions and a staff and a proportion of troops of other arms. The Light Horse regiments will be formed into brigades like the Infantry, but such brigades are not coterminous with the brigade areas. The other arms will be available for use with brigades during maneuvers and for allotment as divisional troops when the higher organization of divisions is considered necessary.

Each battalion area will furnish for training in the Infantry battalion about 922 adults of 18 years and under 25 years, with a quota of about 75 toward the Engineers, A. A. S. C., and A. A. M. C., roughly, 1,000, in all. It will, in addition, as stated above, supply Light Horse units in some cases and also troops for forts.

14. The new training will be brought into operation as shown in the diagram below:

First stage (January to June, 1911). ●	Second stage (July, 1911, to June, 1912).	Third stage (July, 1912, to June, 1913).	Fourth stage (after July, 1913, for each year).
Existing junior and senior cadet forces continue, but all equipment to be returned before 30th June, 1911.	Old junior and senior cadet forces cease on 30th June, 1911.		
Registration, inspection, and medical examination of lads whose 14th, 15th, 16th, or 17th birthdays occur in year 1911.	Registration, etc., of lads whose 14th birthday occurs in year 1912.	Registration, etc., of lads whose 14th birthday occurs in year 1913.	Registration, etc., of lads whose 14th birthday occurs in 1914 and following years.
	New junior cadet training begins in schools, etc., from 1st July, 1911.		
	Clothing, equipment, and training of new senior cadet forces, estimated 100,000.		
		Continuation of new senior cadet force, 100,000.	
		Clothing, equipment, and training of recruits, 20,000 from senior cadets for new citizen forces.	Continuation of new citizen forces, increasing each year by (estimated) 20,000.
		The creation of the units under the new organization will take place on a date to be notified later, during this period.	

During this transition the greatest care must be taken by members of every part of the defense force to prevent any estrangement or friction between the several parts. It must be recognized that, pending the creation of the units of the new organization, clear-cut lines of demarcation in duties and responsibilities are in many cases impossible, and, if greater consideration is given to the rights of Australia and less to fancied grievances and rights of individuals, all parts of the machine will work in harmony. The new scheme is much bigger in its numbers, and promotion will be open and rapid, but Australia needs for such promotion the best talents that can be got, and fancied rights, based on perfunctory attendances at so many days' parades or other formal seniority, must not be allowed

to count as a substitute for practical military efficiency and ability to command troops in the field.¹

ALLOTMENT OF STAFF.

15. The staff provided for in this year's appropriation by Parliament for the territorial work of the new system and instructional work with existing troops, is as follows:

Officers of the administrative and instructional staff.....	2 58
Area officers (temporary).....	224
Staff instructors (warrant and noncommissioned officers of the instructional staff).....	2 425

16. It is proposed, as a general rule, to detail two officers of the administrative and instructional staff to each brigade area, one as brigade major the other as his assistant.

To each training area there will be one area officer (temporary), appointed from the citizen forces.

In each brigade area one staff instructor will be allotted for brigade work to the brigade major.

In each training area one staff instructor will be allotted for duty with the area officer.

To each regimental headquarters of existing units one staff instructor will be allotted for duty (two in the case of large units).

The remainder of the staff instructors will be divided among the brigade areas and will be detailed for duty, as required, by brigade majors.

The work of adjutants of existing units and of new senior battalions will be performed by area officers as detailed from time to time by commandants.

17. There will in future be no distinction between the staff allotted to the instruction of troops and cadets, and all staff officers, area officers, and staff instructors will be expected in the future to be equally capable of Light Horse or Infantry training. Some exceptions may be permitted in favor of older members of the instructional staff who are not suitable for mounted work.

It is proposed, in the future, not to provide special members of the instructional staff for technical arms, but to have additional officers and noncommissioned officers in the permanent troops, so that such may be detailed for instructional duty as required.

DUTIES OF STAFF.

18. The instructional staff and area officers are required to perform duty either with Light Horse, Infantry, or senior cadet units.

The Light Horse and Infantry are the "Line regiments" of the Australian Army. The instructional staff will also be required to instruct in mounted or foot drill for such services as Engineers, Army Service Corps, and Army Medical Corps.

19. The brigade major will represent the commandant in his brigade area, and orders issued by him will be considered as "by order" of the commandant. This system must hold good until the creation of the units of the new organization, and is only of a temporary character.

¹The actual number of the first transfer to the militia in July, 1912, was 19,000.

²There are still some vacancies unfilled in these positions, to which appointments will shortly be made.

The brigade major will be responsible for the instruction of officers of the existing citizen forces, will conduct local schools of instruction, supervise the work of area officers, instruct them in their duties, advise and help them in difficulties, detail the instructors under his orders as required to perform the duties required with all units in the brigade area, bearing in mind the necessity of maintaining the standard of training in existing militia units.

Although these units will not have the exclusive use of as many members of the staff as before, it is to be borne in mind that the number of the staff instructors is doubled, and that when required the number available for any extra pressure of work with any unit is much larger than before.

The arrangements for the allotment of staff instructors must be varied as necessitated by the various stages outlined in paragraph 14, and the exigencies of the service will require at one time all the personnel available to be at the disposal of militia units, at another for training the new recruits, at another to help in registration and medical examination of senior cadets. Again, a staff instructor allotted to a militia unit in a country town must help with senior cadets there, and, vice versa, one allotted to duty with an area officer must help with any local unit of the existing forces. In all this the Military Board relies very much on the patriotic assistance of commanding officers while the period of transition is in progress.

The assistant brigade major will be under the orders of the brigade major, will perform his duties in his absence, and may be required to fill the place of an area officer during a vacancy.

20. Area officers' duties vary somewhat, both in kind and extent, as shown by the following conditions:

(a) Some areas are in one locality only, others contain several localities and much country, for which annual exemptions must be given at first. The numbers in city areas are much larger than in country areas, but this is compensated by the absence of time lost in traveling. (b) Their work at first is mainly organization and registration; later, the clothing, arming, and equipment of the new senior cadets, and the duties of adjutant of some unit, then assisting in the training of senior cadets, afterwards of recruits for the citizen forces, and finally the assumption of the varied duties under the full operation of the new scheme. (c) While the number and variety of the duties will increase during the first three years by a succession of steps, each of the duties first taken in hand will have become easier as the novelty has worn off.

In the duties of area officers, as in other cases, during the transition period all must be prepared to help the scheme in any way possible. Exactly defined duties are not possible, and efforts limited by close-drawn bounds can not be permitted. Three years hence will be time enough to lay down the relative functions with more detail.

21. Experience has shown that citizen officers, with but limited leisure from their ordinary vocations, feel the burden of administrative duties rather than those of a combatant character, which afford sufficient change of scene and interest to become interesting. It is these administrative duties of which area officers are expected to relieve citizen officers in addition to their own special work of organization. When the administrative work of the citizen forces is simi-

lar to that required in war as in camps of training then the citizen officers must be accustomed to the work; but on all other occasions the ordinary peace routine connected with clothing, equipment, recruit drill, transfers, pay, etc., can well be taken off their shoulders.

But it must not be imagined that area officers will have nothing but administrative work. As adjutants they will be called on to do their share of all training, and each for his own area must assist all units therein in their work and supervise the recruit drill.

22. With the new units, as they come into being, and whatever arm they belong to, the members will go to the area officer for all clothing, arms, equipment, pay, etc. He will always be there for them to apply to for advice; he will know all about their conditions of employment, the time most suitable for calling parades without unduly interfering with ordinary avocations; and above all he will endeavor to enlist the sympathy and help of the older men of the area and to create that spirit of rivalry in work and sport between training and battalion areas which is so productive of strenuous effort in Australia.

23. The numbers with which area officers will have to work will probably be:

Junior cadets.....	180-350
Senior cadets.....	300-550
Adult recruits.....	70-120

The duties of area officers with regard to junior cadets is dealt with in paragraph 92.

24. The transfer of area officers is not to be encouraged, more especially in view of the importance of their acquiring a thorough knowledge of local conditions in their areas.

Area officers appointed in future will be required either before or within six months to pass schools in Light Horse and Infantry training and musketry of six weeks' duration.

25. The staff instructors (warrant or noncommissioned officers) must not only drill recruits of the citizen forces but cadets also. They must be well up in such subjects as are required for the instruction of junior officers and the noncommissioned officers of the citizen forces.

Every staff instructor should be equally capable of instructing in Light Horse or Infantry drill and tactics. The drill of both is simple, and the tactics are practically the same.

All staff instructors are required to carry out the administrative work of the units or areas to which they are allotted. This will naturally be heaviest during the transition period. Notwithstanding, however, their being told off to some particular post, they are, nevertheless, available for any duty under the direction of the brigade major.

For the assistance of the area officers the staff instructors trained at Albury will as far as possible be selected, as they have had more opportunity for instruction in details of the scheme. All staff instructors are expected to make themselves familiar with it.

THE MILITARY COLLEGE.¹

26. Lord Kitchener advised the formation of a college to train permanent officers as instructors of the citizen forces. The first course will commence shortly; it will probably last four years, and be followed by a tour of duty in England or India, and finally a probationary year at area work.

It will therefore be 6 years before any of these officers of the new Staff Corps can be counted on for duty, and at least 15 years before all the area officers are supplied from it.

In its organization the Staff College is in reality the most democratic institution. The competitive examination is within the capacity of good pupils from a State school, it is open to all, and the successful candidates pay no fees, but, on the other hand, are taught a profession, fed, clothed, and paid at the same time, and finally obtain a permanent appointment on the staff.

CITIZEN'S LIABILITY TO TRAINING.

(See Pt. XII, secs. 125-137, and Pt. XIV, secs. 142-146, of the defense act.)

27. The defense act, 1909, came into force on 1st January, 1911, and from that date all male inhabitants of Australia (excepting those exempted), who have resided therein for 6 months, are required to register in the month of January of the year in which they attain the age of 14 years (also 15, 16, and 17 years in the first year of the act, 1911). Those of the above who are British subjects are also required to be trained.

The liability is as follows (sec. 131, D. A.):

Those born in 1893 and earlier are exempt from training except in time of war.

Those born in 1894 must register in January, 1911, train one year in senior cadets, and then be trained in the citizen forces until June 30, 1920.

Those born in 1895 must register in January, 1911, train two years in senior cadets, and then be trained in the citizen forces until June 30, 1921.

Those born in 1896 must register in January, 1911, train three years in senior cadets, and then be trained in the citizen forces until June 30, 1922.

Those born in 1897 must register in January, 1911, train four years in senior cadets, and then be trained in the citizen forces until June 30, 1923.

Those born in 1898 must train one year in junior cadets, 1911-12, register in January, 1912, train four years in senior cadets, and then be trained in the citizen forces until June 30, 1924.

Those born in 1899 must train two years in junior cadets, 1911-1913, register in January, 1913, train four years in senior cadets, and then be trained in the citizen forces until June 30, 1925; and so on, for succeeding years.

The length of training in each part is set out under its appropriate heading.

EXEMPTIONS FROM TRAINING.

(See Pt. XIII, secs. 138-141, of the defense act.)

28. A permanent exemption from training will be issued to those who have been certified by the examining medical officers as "unfit" for training at any time during their liability. Registered persons who are not British subjects will receive similar exemptions.

29. Temporary exemptions will be granted, of not exceeding 12 months' duration, but renewable from time to time, to those who are—

¹ The Military College has since been opened, 27th June, 1911.—Ed.

(a) School-teachers, qualified as instructors, or officers of cadets; (b) members of the permanent naval or military forces; (c) residents in exempt areas; (d) residents in training areas who live at such a distance from training places that attendance would create hardship (for the present this will be taken as 5 miles by the nearest practicable route); (e) theological students; (f) those found by medical examination to be "temporarily unfit."

30. A permanent disqualification for service will be entered against those who have been found by a court (see sec. 141, D. A.) to be unfit to serve by reason of bad character.

31. Partial exemptions may be granted to—

(a) Those not substantially of European origin or descent (sec. 138 (1) (b), D. A.); exemption only applies to training in duties of a combatant nature. (b) Those who are forbidden by their religion to bear arms (sec. 143 (3), D. A.); exemption only applies to training in duties of a combatant nature. (c) Those of the junior cadets, certified by the medical officers to be unfit for part of the training, so far as that part only (sec. 138 (2), D. A.).

32. Further, the Governor General has power to proclaim a limited exemption (sec. 140 (d), D. A.). This may in the future be utilized in regard to those exempted as mentioned in paragraph 29 (c) and (d) above, by exempting them from all requirements (as adults) except a certain number of days in camp annually.

33. Exemption certificates will be issued by the area officer or officer appointed by the district commandant for exempt areas. Disputed cases will be referred by them to the brigade major or commandant. Failing acceptance of the decision given by the military authorities, the person concerned can appeal to a court (D. A., sec. 139 and Reg. 23.)

Exemptions may be withdrawn by district commandants (Reg. 21).

REGISTRATION.

(See Pt. XIV, secs. 142-146, of defense act, and par. 27, above.)

34. The places appointed for training and registration and for exhibition of notices will be published by the district commandant in orders and advertised (Reg. 3). Changes will be similarly notified.

35. Those bound to register must do so in the month of January, or, if not then in Australia, within 30 days after completion of 6 months' residence therein.

Registration papers may be obtained at post offices, but if not available, particulars may be given on ordinary paper. The absence of a form is no excuse for failure to register. Parents, guardians, or those acting as such, are made responsible for the registration of those under age.

The registration paper, when filled in, may be posted or handed to the postmaster. In exempt areas it should be transmitted to the district commandant, in other cases to the area officer.

The duty of exhibiting notices, keeping and issuing registration forms, and transmitting them to the proper person, is laid upon postmasters (and postmistresses) by the act, section 145 and regulation 4.

36. Persons registered and changing their address must notify the same within 30 days to the person to whom their registrations were sent or to the area officer of the area in which they then reside

Seagoing persons are dealt with in defense act, section 137 and regulation 31.

37. Prior to the 1st January of each year, area officers and representatives of district commandants should send to postmasters a sufficient number of Forms M. 1, 2, 3, 4, and 5, and map showing area.

38. The area officers will retain their registration papers, which should be sorted and grouped into those who will train and who will be exempt. The former again into groups for the separate localities. Each group should be subdivided into classes by years of birth and the classes arranged alphabetically. Probably registration papers will not be wanted after the issue of the record book, but they should be filed in case of necessity.

In each class should be noted the number training with their school in another area. This could be kept on a card with the registration papers, so that the correct number available in the area in future years for the citizen force might be calculated.

INSPECTION AND MEDICAL EXAMINATION.

(See defense act, sec. 144.)

39. Persons liable to be trained must attend when required for inspection or medical examination. The former can take place any time, but is usually in connection with a medical examination. The places will be notified in district orders and advertised (Reg. 3), and area officers will notify the day and time to those concerned (Reg. 8) by exhibiting notices or by post to individuals (Form M. 6).

The dates and times should be made as little inconvenient as possible to those examined and the medical officer, and no more should be required to attend at one time than can be examined.

40. Certain persons will not be required to attend for medical examination:

(a) Those who are not British subjects; (b) those already enumerated in paragraph 29 (a) to (e), until the condition of temporary exemption ceases (Regs. 9 and 10); (c) those already disqualified by the courts (see par. 30); (d) those known by the area officer to be absolutely unfit, blind, maimed, etc. (Reg. 11).

41. The medical officer should be assisted in his examination by the area officer and staff instructors when possible, and the clerical work performed for him. Thus, the weight, height, and other particulars, excepting the chest measurement, eye test, and fitness, might be entered by them.

The record book M. 7 is for the use of those who will be trained; M. 8 is the office duplicate of this. Record book M. 9, a simpler form, is for those unfit and those temporarily exempted until their service begins, and for office copies.

Until the medical officer has decided whether a lad is medically fit, therefore, his book M. 7 should not be filled in. When the entries are made it must be signed by the medical officer.

The statistical cards, M. 10, may be made at the time of the medical examinations, or later. Instructions compiled by the Commonwealth statistician will be available in each area, and the completed cards will be forwarded to him direct. Cards will be sent in for those

judged absolutely unfit by area officers, with reason for same thereon, but without other details. The minister desires these important records to be carefully compiled.

43. In filling in the marks or scars on the record of medical examination, if possible two such variable distinguishing marks should at least be noted, and, for preference, those on the face, hands, or neck. This is for identification purposes, and to prevent an evader from using the record book of one who has served.

44. Care should be taken that the arrangements for the medical examination will require no undue exposure of the lads, or subject them to risk of chills by remaining long undressed.

Extra staff instructors will be detailed when possible to assist.

45. The prescribed medical authority referred to in the act and regulations is (Reg. 19) —

(a) An officer of the Australian Army Medical Corps appointed for duty to the training area or to any unit in the area; (b) a duly qualified medical practitioner approved by the district commandant; or (c) the area officer, in the case of those obviously unfit (Reg. 11).

RECORD BOOK.

46. The record book has already been mentioned, paragraph 41; it is ordered to be issued by section 146 of the defense act. It should be noted that all entries in the book are *prima facie* evidence in a court of law of the facts thus recorded; in other words, they are sufficient evidence, unless evidence to the contrary is shown.

For every record book issued a duplicate must be kept by area officer of the training area, and when a lad is transferred to another area the duplicate book will also be transferred. Duplicates should be sorted alphabetically, in classes (see par. 38).

47. Record books M. 7 should not be issued, as a rule, until 1st July, the beginning of the training year, or such date as the issue of equipment and clothing has been made, because this has to be recorded.

Unless permission to the contrary is given, every person undergoing training should, when in uniform, have his book in possession.

48. Senior cadets must produce their books for inspection whenever required, and if they lose them must pay 2s. for another (Reg. 48).

49. In view of section 123B of the act, no cadet can be compelled to state his religious denomination. When they have no objection, however, it should be entered at the bottom of page 5 of the record book. The information will be of considerable use in the duplicates when making arrangements for religious services in camp, and in the original books would afford a means of providing a suitable burial for those who die on service.

50. In estimating the numbers likely to be available we find that in 1911 there will be about 4,500,000 people in Australia, of whom 2,200,000 have votes on the electoral lists of the Commonwealth. These lists, showing the number of electors in each division and subdivision (together with a subdivisinal map), are therefore a most valuable means of arriving at the probable numbers in any area, because it may be fairly assumed that the population is twice the number of electors. This should be borne in mind in future proposed changes of boundaries.

A further guide is the population of cities and towns in the Year-book of Australia.

51. Having found the population of an area, it is then necessary to work out the probable number of senior cadets and citizen soldiers in training in the future.

We find that the population of Australia contains 188,000 males of 14 to 18 years and 295,000 males of 18 to 25 years.

Deduct about 10 per cent as the possible medical rejections for senior cadet training, and from 30 to 35 per cent for adult training, and we ascertain that every area should supply, for every 1,000 of population, about 30 senior cadets and 40 to 50 citizen soldiers.¹

52. On this basis it has been determined not to commence training, normally, in centers with a less population than 3,000, and under no circumstances under 2,000, owing to the small numbers being insufficient for satisfactory training, in addition to the great expense involved in visiting a number of small centers.

53. It may be thought that 35 per cent medical rejections in large cities is too high, but it is less than experience shows in European cities. Further, it has to be remembered that medical officers will bear in mind the bodily exertion required of soldiers in the field on active service.²

The uniform, equipment, and arms of an Infantry soldier weigh nearly 60 pounds, and with this he must be prepared to march 20 miles a day. To spend large sums on the equipment, training, and clothing of men who are not fit for war would be a breach of public duty, and hence the necessity for a weeding out in peace of those who would become stragglers in war.

Apart from the matter of physical endurance, it is little realized how many, even in the country districts, are affected by weaknesses, at present in ordinary life perhaps causing no serious inconvenience, but in war bound, under the severe stress of exposure and fatigue, to throw out those whom they burden.

The medical rejections for the senior cadets are only put at 10 per cent, because it is desired in this stage to eliminate only those who are unable to bear the fatigue of the elementary training, or who already bear certain defects from which they can not possibly be sufficiently free at 18 years to be fit for service.

ALLOTMENT TO ARMS.

(See sec. 143 of defense act.)

54. Subsection (2) of the above section requires that all those liable to training shall be allotted to the naval or military forces. It is intended that the Australian Navy shall have its pick of our lads. Naturally, those who live in certain localities, and belonging to certain classes of employment, will be selected by the naval authorities. Our young navy will have many difficulties to overcome, and Australia's needs must have first consideration, not the individual wishes of those who wish or who do not wish to serve in the first line of defense.

¹ Speaking generally, the forecast has turned out slightly less than has actually resulted from the work during 1911-12.

² The average percentage of rejections (medical) at the age of 14 years is actually 7.6. The percentage of rejections at the age of 18 years, of senior cadets available for transfer to the militia, is actually 15.3. The reason of this apparent difference is that the earlier examination weeds out only those too weak for senior cadet training, or who have some defect which they can not grow out of, and which will certainly cause rejection at 18 years.

55. Those not allotted to the Navy will be allotted to the various arms of the land forces, but not until their senior cadet training is completed.

To commence the subdivision of the work in the senior cadets would involve a very largely increased staff and expenditure, and a decrease in the value of the training in minute detachments. The senior cadet training will be of one character only, and will include the foundation work necessary for service in any arm, viz: Marching, discipline, the handling of arms, musketry, physical drill, first aid, guards and sentries, tactical training as a company in elementary field work, and some battalion drill (sufficient only of the latter to move large bodies in an orderly manner). (Reg. 27.)

Big parades are not our ideal, nor of any great practical value, but it is as well to be ready if the public feeling demands them, and there is small doubt that the people will not understand the magnitude of our undertaking until it sees what large numbers we are dealing with.

56. Mounted cadets, Boy Scouts, Boys' Brigades, and all these kindred organizations, can not be included in the new arrangements. Such of them as continue on a voluntary basis will not be interfered with, but their members can not be excused from training in the units organized under the defense act.

SENIOR CADETS.

ORGANIZATION.

57. All the senior cadets in a battalion area will be allotted to one battalion. The strength will vary considerably, because such areas are unnecessarily unequal in size and population, and the number of companies will not be uniform, but this is no matter, as the battalion is not a fighting unit or trained as such, and its appearance on parade as a whole will be rare.

For this reason, a battalion staff is seldom required on parade. It will therefore consist only of a battalion commander and an adjutant (area officer). The battalion commander will be a citizen officer, responsible for command, discipline, and recommendations for promotion, etc.

58. The battalion area is divided into two or three training areas, and the senior cadets in each will be allotted to companies, of the following establishment (Reg. 25):

Captain.....	1
Lieutenants.....	2
Color sergeant.....	1
Sergeants.....	4
Corporals.....	4
Buglers.....	2
Privates.....	106
Total.....	120

If there are not sufficient numbers in any locality, a company may be less than the above, the reduction being in privates, but less than 80 will be a detachment, i. e., part of a company, and will be joined to some other locality to form a company, the various ranks being allotted proportionately to each.

Companies should not contain any but those of the same training area, and, as far as possible, officers, noncommissioned officers, and privates should be from the same part of the training area, if it is extensive. The same principle should be followed in half companies and sections.

TRAINING.

(See secs. 126, 127, and 133 of the defense act.)

59. Training in every year begins on 1st July, and terminates on the following 30th June. The first training carried out under the act will be that of the year 1911-12, of which the registration takes place in January, 1911.

For the purposes of the act, those whose fourteenth birthday occurs at any time in the year 1911, will be considered of the age of 14 years on the 1st July, 1911, at the beginning of the training.

The battalions will therefore have on 1st July of each year lads from $13\frac{1}{2}$ to $17\frac{1}{2}$ years, and, on the 30th June following, from $14\frac{1}{2}$ to $18\frac{1}{2}$ years.

Those who are passed out into the citizen forces every year on 30th June will be $17\frac{1}{2}$ to $18\frac{1}{2}$ years.

60. The duration of training is 4 whole-day drills of not less than 6 hours¹ (probably held on public holidays); 12 half-day drills of not less than 3 hours;² 24 night drills of not less than $1\frac{1}{2}$ hours;³ but these can be varied, if approved by the brigade major. Thus, instead of night drills, detachments at schools may have all their work in daylight.

These requirements are absolutely compulsory. The number of parades, called as statutory parades, will be increased by extra voluntary parades. The latter are for the purpose of enabling those who are backward to attain the necessary proficiency, to give an opportunity for practice to those preparing for promotion, and to make up for parades missed.

A statutory parade missed while on leave may be made up by attending a similar (or longer) voluntary parade, but a parade missed without leave can only be made up for "efficiency" purposes by attending two separate voluntary parades, each of equal or longer duration than the one missed.

Leave only will be granted in special cases (Reg. 28).

61. But attendance at the statutory number of parades alone does not satisfy the requirements of the act. A perfunctory attendance is of no value to the country or the lad. The object of the act is to make men fit to fight, and, consequently, every year, at the end of the training, there will be boards of officers in every battalion, who will classify the cadets as "efficient" or "nonefficient." This will be entered in their record books, and the year's work of the lad who is nonefficient goes for naught; he will have to do an extra year's training for each failure.

62. The standard required will necessarily not be very high the first year, practically only what an average lad giving proper attention ought to have learned in the time, and in each successive year a higher standard will be expected.

¹ Since altered to 4 hours.

² Since altered to 2 hours.

³ Since altered to 1 hour.

The subjects taught are already given in paragraph 55, and a small manual is now in course of preparation, showing what parts of the authorized books are to be used, and giving details of matters not contained in such books.

Instructors must be careful not to work boys too hard, particularly the younger ones, and especially in physical exercises and in parades of considerable length. Emulation often leads boys to attempt what is too much for their strength, and this can only be prevented by careful watching on the part of the instructor. Such lads should be made to stand aside and rest. It can be done on many excuses without hurting their feelings, and this also should be especially remembered when only a few are put aside. Never do anything to make a willing but not overstrong lad dislike to come to parade. Care may make a soldier of him eventually.

The Manual or Physical Training contains much valuable scientific information in regard to the proper development of lads without overworking them.

Area officers should consider the convenience of those under training when suggesting dates of parades to battalion commanders. Ample warning should be given of dates of parades, or changes therein, and there should be recognized places in every area in which they are posted.

In the training of senior cadets the officers will be citizen officers. Some may be well up in their work, others not so. It is important that instructors should do everything to support the authority of the citizen officer and assist him to qualify for his responsibilities. But it is ordered that, when present on parade, half the instruction should be given by the area officer or a staff instructor.

LEAVE, ABSENCE, TRANSFERS.

(See Regulation 28.)

63. Leave may only be granted in special cases (Reg. 28) and is only made good by attending parades in lieu. A senior cadet moving to another area for some months, especially if the term includes 30th June, should apply for a transfer to the new area. For shorter periods he should apply to either area officer for permission to temporarily train in the new area (instruction (1) after Reg. 31).

In certain cases, e. g., living near the border of an area, he may be permitted to train in an area other than that in which he lives.

In these matters area officers and the staff should not raise routine difficulties, if substantial compliance with the act is given, and every assistance should be given.

64. Absence caused by sickness of which the area officer is satisfied should be taken to justify a "temporary exemption" for the time in question. Medical certificates cost money, and should not be demanded except in suspicious cases. Even in such cases it may be necessary to have the assistance of the medical officer of the area. When such temporary exemption is of long duration, naturally so high a standard of efficiency can not be expected at the end of the year.

65. In the case of those who for part of the year have lived in an exempt area, or at too great a distance from a training place, the same principle should be applied as in the last paragraph.

66. Transfers may be applied for either to the area officer of the old or new area. Clothing alone should be taken by the senior cadet, and a duplicate signature for the same should be obtained for the area officer of his old area, in view of the acknowledgment in the duplicate record book being transferred to the new area.

If transfer takes place after the "efficiency" classification for the year, it should be entered before transfer.

SCHOOLS.

67. All educational establishments which have 60 senior cadets may be allowed separate units for training purposes, provided every company or detachment has not less than one teacher of the institution as an officer. They will form part of the battalion of which the local training area supplies part.

68. Their parades may be arranged differently from those of the other companies in the area, but they must attend the same battalion parades.

69. The senior cadets in these units, if they live in other areas, must notify the area officers of those areas, in order that the latter may keep a correct account of those who will be available for adult training later on.

70. A senior cadet transferring from one school to another, or to the universities, may be similarly transferred in the special units, provided the area officer of his residential area is notified.

71. Should students remain at such institutions after the 1st July of the year in which they become 18 years of age, they may continue to train in the senior cadets or such special units as above mentioned. Their training, however, must be of the same standard and duration as in the citizen forces. This could be arranged by forming part of the special units raised at universities, etc., or by doing part of the training with units of the citizen forces. (See defense act, sec. 128.)

EVASION OF SERVICE.

(See secs. 134-136 of the defense act.)

72. No lad can be prevented from training by his employer, under a penalty of £100. He is not entitled to pay while away from work but this should affect him very little if the dates of parades are suitably chosen.

Any lad who is prevented from serving by his employer, or whose pay is reduced, or any other influence to the like effect brought to bear, should notify his area officer, and the necessary action will be taken to enforce the penalty. Any action having the effect of keeping the lad from parades throws on the employer the onus of proving the cause to be otherwise.

73. No person can escape liability by evading service. Some time or other he will be caught, and will then have to put in his full service, and, in addition, is liable to payment of a penalty from £5 to £100 for each year of evasion. The penalty may be inflicted, but can not be enforced until the end of the year in which the offender reaches the age of 18 years.

Further, he may be ordered by the court into the custody of a member of the instructional staff or an area officer, to be drilled for

the extent of time he has evaded training. Should he attempt to escape, he may be rearrested and ordered by the court to do additional training up to 20 days for each offense.

74. While a defaulter in respect to training a person can not be employed by the Commonwealth.

NONCOMMISSIONED OFFICERS.

(See sec. 62 of the defense act, and Reg. 33.)

75. Noncommissioned officers of the senior cadets will be appointed on the results of competitive examinations of those in the next lower grade. The examination will be practical only, and candidates, after January, 1913, must have a specified length of service.

76. All instructors should make lads understand that their future advancement in the defense force of Australia depends almost entirely on the progress they make in the first two years of the senior cadet training. There should be the greatest keenness to succeed, and every encouragement and assistance given to those attending the voluntary parades for qualification.

OFFICERS.

(See defense act, sec. 62, and Regs. 34-43.)

77. The officers of the senior cadets will usually be men of mature years, but a small number of second lieutenants may be appointed under rules similar to those of noncommissioned officers. The junior officers will pass up into the citizen forces with others of the same year, and are then eligible for commissions in the defense force. (D. A., sec. 62.)

It is hoped that the bulk of the officers of the new senior cadet units will be provided by the present officers of old senior and junior cadets.

78. The examination for officers of the senior cadets is laid down in regulation 37, and their ranks are honorary ranks in the defense force. They may, however, take the same examination as officers of the citizen forces, in which case they receive substantive commissions.

79. Officers are provided with uniform free of cost (Reg. 49), and an annual allowance (Reg. 57).

UNIFORM.

80. Uniform is necessary for military training, ordinary plain clothes being unsuitable for the work. All classes will have to train together; there should be no distinction in dress, only that of proficiency as a young soldier. Uniform will always be worn on duty, never at any other time.

81. The issue of uniform involves great expenditure; therefore, it must be simple while suitable for the purpose. It will consist of hat, woolen shirt, woolen breeches, and puttees, issuable every second year. This will meet the requirements of growing lads, more especially as the design of the garments allows a certain margin in fitting.

82. In the first year of the system we have little to guide us as to the proportion of sizes required, and a very large supply must be got ready by 30th June, 1911.

Area officers should endeavor to complete the medical examinations, and send in their requisitions for garments, stating number of each size required, by 1st March.

83. Uniform will be taken by cadets transferred to another area, or to the citizen forces. (See par. 66 and Regs. 49-53.)

84. All senior cadets will wear the battalion numeral on the front of the hat. Officers, when wearing military shirts, will wear rank badges on the collar.

EQUIPMENT.

85. Regulations 50-55 deal with equipment. Arms are not to be taken to the lads' homes under any circumstances, and no ball ammunition is to be allowed to remain in their possession except while in position to fire at the range.

The Westley-Richards rifle, a light form of Martini-Henry, with smokeless powder, has the latest pattern of sights, and is capable of excellent shooting at short ranges. It will kill at 500 yards, and therefore would be quite serviceable for departmental troops in war.

The service rifle may be issued in small numbers to the elder lads who are good shots, for the purposes of competition only. The cadet rifle will be used for all drill and cadet musketry.

All equipment issued is taken on charge in the ledgers of area officers, not by battalions.

FINANCIAL CONSIDERATION.

(See Regs. 56-58.)

86. In every training area there will probably be, on the average: Senior cadets, 300, minimum; 550, maximum. Recruits for citizen forces, 70, minimum; 120, maximum. Trained soldiers, 250, minimum; 500, maximum; and, in addition, some junior cadets not attending school.

To provide drill-hall accommodation, offices, and storerooms for these, on the scale often followed in the past, would mean an expenditure of about £3,000 on each locality, and there are over 300 of such localities.

The erection of such buildings would therefore entail an expenditure of £1,000,000, and at a time when all that can be spared is wanted for fighting equipment.

87. Already, the Commonwealth Government has been in communication with the premiers of States, with the object of securing the cooperation and assistance of the municipal and shire governing bodies, and the replies have been most encouraging.

Should such assistance not be given in any case, we are no worse off than 20 years ago, when the small defense force then in existence did very well in the then state of military science, even though we had to learn our rifle exercises by the light of the street lamps.

When the new scheme is properly understood, however, there is no doubt that the local bodies will do their best to help their own sons to whatever accommodation can be made available on the drill nights.

And we trust, too, that the local mayors and their councils will become the patrons of our lads' rifle clubs and encourage them in all their military competitions.

Failing all else, it is to be remembered that this is a working organization, and that all the room absolutely necessary for office and storeroom can be provided by a small cottage in a working locality.

DISCIPLINE.

(See Regulations 44-48.)

88. All cadets in a military district are under the orders of the commandant (sec. 62, D. A.), and, under him, the battalion and company commanders are responsible.

The battalion commander deals with military offenses, or in the cases of detachments at a distance, the detachment commanders.

The senior cadet units are subject to the same rules for discipline as the citizen forces, and these rules are contained in the defense act and Commonwealth Military Regulations, with the exception that, instead of trying them in serious cases by court-martial, they will be brought before a court of summary jurisdiction.

It is well to remember that certain new prohibitions have been made law by the defense act.

No senior cadet may have any cigarettes in his possession, or material for them, in uniform, on duty, or parade, or in any place used for military purposes (Reg. 47). The same prohibition applies to intoxicating liquor.

Nor may any person, soldier or civilian, have any such liquor in his possession in any place in which training under the new system is in progress (D. A., sec. 123A). The penalty for any person subject to military discipline is not exceeding three months' imprisonment; in other cases, a fine of £10.

89. Military discipline should be taught as a regular subject, in connection with other work, because 10 minutes at a time is the most that should be taken. Not being so interesting as other subjects, great care must be taken not to bore those under instruction, and one of the best methods is to ask questions as to what should be done in certain circumstances, correcting mistakes in the answers.

Similarly, citizen officers should receive assistance from the staff instructors, because it is most necessary that they should be familiar with the proper method of enforcing the rules required by an organized force.

Discipline, it is true, may be enforced by a system of punishments only, it is improved by the addition of rewards for excellence; but, with Australians, boys or men, experience shows that real discipline depends most on the officer knowing his job. Show a well-disciplined company and we all know it has a level-headed commander who knows his work.

90. Fines inflicted for breaches of discipline, if unpaid, can be recovered before a court (see C. M. Reg. 297A), or can be deducted from pay subsequently earned in the citizen forces, or can be made a reason for classification as "Nonefficient," because no lad or soldier can be considered efficient who is in default in disciplinary matters.

Commanding officers in applying the scale of punishments laid down in C. M. Regs. must bear in mind that they are dealing with senior cadets, and at the same time remember what the lad is earning or the financial position of his parents, in fixing the amount of fine. What is little to one may be a serious loss to another.

JUNIOR CADETS.

(See defense act, secs. 62, 125-127.)

91. Training in the junior cadets commences on July 1, of the year in which boys attain the age of 12 years, and ceases on the commencement of training in the senior cadets, two years later.

The training is again of a more elementary character, and rather for the purpose of building up the frames of our future men and giving them knowledge of a general character not always taught in schools. Many of them may fail to "pass the doctor" later on, but they will be better citizens for their training and, if they serve, better soldiers.

The act makes no demand for registration at the age of 12 years, but later on, when they are registered, it will be necessary for them to satisfy the area officers that they have complied with the act.

Regulations for the universal junior cadet training have not yet been issued, but will be available before commencement of the training. The paragraphs following deal with the probable provisions of those regulations as outlined in preliminary decisions of the minister.

92. The act provides that "where the required training is given by the masters of schools to the satisfaction of the prescribed officer, that training may be accepted as sufficient." It is expected that the majority of the boys liable will be thus trained. Those who are not attending school must be provided for by means of the existing military staff.

In the case of the Government schools the prescribed officers may be such State inspectors of schools or special inspectors of physical training, as are appointed by the minister for defense.

In the case of other schools the department will also appoint either special inspectors or area officers to see that the act is complied with. It is not the intention in any way to interfere with the work of schools which do the work laid down in the act.

Facilities will be given by which the special instruction required can be imparted to school teachers at special schools of instruction, or during visits of the physical training staff of the department.

School teachers who thus qualify as instructors will be exempt from military training under section 138 (1) (c) of the defense act.

When training is not carried out by the schoolmasters, area officers will arrange for the staff instructors to visit the schools, if possible, at such times as the work of the staff will permit, otherwise the boys, like those not attending school, will have to attend when and where ordered.

93. The prescribed training for schools will be:

(a) Physical training, not less than 15 minutes per school day, and attainment of a certain standard of efficiency. (b) Elementary marching drill (no time to be prescribed), with a certain standard of efficiency. Every boy to attain a prescribed standard in at least two of the following: (c) miniature rifle shooting; (d) swimming; (e) running exercises in organized games; (f) first-aid instruction.

The Syllabus of Physical Exercises for Public Elementary Schools, 1909, adopted by the board of education, London, and recommended by the conference of March, 1910, will be the textbook for subjects (a) and (e).

94. The boys subject to junior cadet training will be medically examined by medical officers of areas, and those unfit will be exempted from all or part of the training.

95. Military uniform will not be issued and must not be worn by junior cadets; penalty, £10. Uniform is not necessary for the work and the cost of it would be great. In view of the other great demands on the public purse, therefore, it will not be provided. To permit it to be worn would, as now, differentiate between those whose parents could afford it and the others. In complying with the public duty of training this distinction can not be permitted. Area officers will report any attempts to evade this provision.

96. The practice of assisting in the construction of miniature rifle ranges, issuing miniature rifles on loan, and granting ammunition is to be continued. The rifles will be "Francotte" pattern, until the existing stock is exhausted, then an approved miniature pattern. The issue will probably be 10 per cent of the numbers in training.

EXISTING CITIZEN FORCES.

97. The existing forces have been expensive and not so efficient as Australia needs. This has not been the fault of those in it, as a rule, but of the system. The number of men who did not complete three years' training was enormous, the proportion who completed musketry each year not high, and the proportion who were non-efficient much too large. Much of the trouble arose through conditions of employment, which will be removed under the action of the new acts, and the new trainees, under the guidance of the stable and well-trained element now in the defense force, will enable Australia to gradually create a respectable fighting force.

98. For the present the existing units, now practically all militia, will continue unaltered; but it is hoped that as many as possible will use this transition period to prepare for the many opportunities for promotion that will arise in the next three years. Those who are qualified will receive promotion, and those who fail to be ready must be passed over.

99. The magnitude of the new organization may be judged from the following outline: 24 existing Infantry battalions will become 93, 18 existing Light Horse regiments will become 28, and 18 existing field batteries will become 56.

The increase in Light Horse is not so marked at first, as the first application of the new acts is mostly to town areas. Later on, the expansion of the training will increase the mounted units at a much more rapid rate. Universal training must be applied first in thickly populated areas, because it is cheaper to carry out there, and because the town men require more training than those experienced in country life.

The new field batteries will not all be created at the beginning of the organization, but will be increased in succession. The other units will all commence at the one time, and other arms of the services will be multiplied in proportion to the Infantry and Light Horse.

THE NEW CITIZEN FORCE.

100. Those who first become liable to training in the new citizen forces will be the eldest class of those who commence senior cadet work on the 1st July, 1911. A year later they will have had a year's experience of elementary training, and on 1st July, 1912, those who were born in year 1894 will be allotted to the several arms of the

service in the new organization, and will commence their first, or recruit, year in the new citizen forces. They will not be raw recruits, and still less will those be who pass up from the senior cadets in later years, but they will be recruits in reference to the special training of the arm to which they are allotted.

101. On this day, 1st July, 1912, the actual new units receive their first members, and on some date subsequent to this the old organization, the Militia units, will divide up to create the main stock of the new regiments, to which each year some 20,000 new trainees under the act will be grafted.

102. Units will be armed as now, with the same weapons as used in the British Army, and with complete equipment for war in regimental mobilization stores. The uniforms will be simple and suitable for active service, and will be issued in such proportions that, on being called out at any time for active service, each soldier should be able to parade with—

Shirts, military, woolen, khaki.....	2
Breeches.....	2
Great coat.....	1
Hat.....	1
Cap (sleeping).....	1
Puttees, woolen, khaki, pairs (or 1 pair leggings, leather).....	2
Boots, military pattern, pairs.....	2
Kit bag.....	1

The boots will be kept, greased, in regimental stores, and used only for camps of training, but after completion of service they will be given to the soldier.

In this way only, except at great additional expense, can a citizen force be prepared to mobilize in a reasonable time, so far as concerns personal outfit.

Jackets and trousers, on present lines, are only to be issued to officers and sergeants.

103. The success of any large citizen force must depend upon the character and training of the citizen officers and noncommissioned officers and, indirectly, on the permanent staff who train them. In time of war everything may be said to depend on them.

The future force is planned to be 120,000 of all ranks, including about 5,000 citizen officers and 8,000 noncommissioned officers.

The permanent instructors in the new scheme include some 300 officers and 400 noncommissioned officers.

In time of war half of these at least would be needed to train the reserves and new units, and the remainder would be an infinitesimal part of the whole force. This emphasizes the necessity of training the citizen officer to the highest responsibilities in leading and command. But a small proportion of them, having other professions to attend to, can ever become well versed in peace administration and general organization outside their own units, or in the highest technicalities of instructional work, but in actual leading of troops and command in the field there is no reason why they should not be just as proficient as regular soldiers.

104. With this object in view, only the best brains and hardest workers will be selected at the annual competitive tests for promotion to a higher grade, and, while Australia will be getting noncommissioned officers and afterwards officers, who are the best men of their years, it will be a startling lesson to other so-called democratic na-

tions in the application of the principle that the best soldiers must lead, whatever their civil avocation or birth.

RESERVES.

(See C. M. Regs. 518, 132a, 514a, 605-608.)

105. No provision was made in the acts of 1909 and 1910 for the creation of any new reserve. Not till 1st July, 1920, will any of our new citizen force pass out of the organization created by these statutes. Till then, any shortage required to make those in training to the war establishments must be provided by the members of the rifle clubs and those on the reserve forces lists.

No doubt when the system is in full work later on arrangements will be made for the reserve organization of those who pass the age of 26 years.

It is probable that large numbers will desire to continue the most fascinating part of a soldier's work, rifle shooting, and remain, as in Switzerland, members of the rifle clubs.

HIGHER TRAINING.

106. Military history may be taken in a right or in a wrong sense. Some of our Australian officers and soldiers have some experience of war in South Africa, very few elsewhere. Some judge all military problems by what they experienced in South Africa; in that they are wrong; the conditions were peculiar probably to that single war, and may never occur again; the enemy were all mounted riflemen, they had little knowledge of strategy, much of cunning, none of discipline. Others, for these reasons, think that such experience will be of no value in the future.

Both are wrong; valuable deductions may be obtained by study of this war, even if we were not there, when we give due weight to the conditions in force. So, too, with the Manchurian and other wars. And in this study of military history lies the secret of the future success of Australia's troops, the attainment of a knowledge of what could be done in the past under all sorts of conditions, and a reasoning and well-balanced judgment of what may be attained therefore in the future.

107. With this object, the Government now assists the work of the united service institutions in the several States; it conducts schools of instruction, staff tours, is arranging for the publication of a military magazine, and is about to create a military college.

108. With the new system, the younger officers will realize the value of the assistance given them to fit themselves for their responsibilities—life or death, may be, to the men under their orders. Part of our present officers have realized it, and have done their best; the others will, no doubt, find the new order of things too trying. Too much has often been heard of officers' rights to this or the other thing, his right to promotion, etc., and too little of the rights of Australia. Australia has a right to give commissions to those she finds fit for the work, and when and how she pleases, and to place them in the reserve if it be thought necessary; the defense of our country is of more value than the rights of a thousand individuals. If this principle be always kept in mind, we shall do our duty better.

WAR.

109. If war should occur to-morrow, how should we stand? Now, and for the next two years, we should have at most 50,000 of all ranks, more or less trained. It would be difficult to concentrate more than 30,000 in any one place.

The new system will give us in eight years' time a force of 126,000 trained men and fully equipped. Every year afterwards will increase the reserve by 12,000 men. And if the training be extended, as it easily may, into the country areas, the numbers may be increased by 40 per cent.

110. What do we want all these troops for? At present there are no clouds on the country's horizon, but, on the other hand, there are many, and not fools either, who do believe war likely. Whether war is likely or no is not the question, however; it is whether war is possible, and what war, and what might be the result to Australia. This we must put before our minds, when we have to think as a people of the sacrifices to be undertaken to ward it off.

111. Nations apparently fight very often for but small excuses, but there are underlying reasons always that are not so apparent. The desire of larger territory, of increased trade, of clearing away distasteful restrictions, even the barefaced desire of the strong to impose his will upon the weak; these and many others decide the rules of a nation to undertake a war.

The superficial cause, after the secret decision is taken, may be so trivial a matter as the arrest of a fellow citizen in the threatened country, an extravagant and impossible demand for a humiliating indemnity, the consequent refusal, and an act of war.

112. Australia is about to make great sacrifices in money, and its male citizens equally great sacrifices in time given to parades and thought and fatigue in the attainment of efficiency; but there is yet a third necessity not yet mentioned. Neither the one, nor the other, nor both together, will make more than a lifeless and mechanical representation of an army, unless it has also enthusiasm. Call it this, or patriotism, or bushido; it matters not, we all know what it is. Without it would the Boer have struggled on through a three years' hopeless war, the Japanese soldiers have rushed forward to fill the ditch that their comrades might pass over to victory? Without it, would the little Swiss Republic have time and again reorganized their citizen army, after more than once suffering all but annihilation?

Some nations know what war really means. The Swiss mothers have heard from their grandmothers what the Napoleonic Wars meant to many of them. The Chinese women whisper how but a few years back their sisters threw themselves into wells after the foreign troops had passed. Infant children have been tossed on bayonets, even in the last ten years. It is true we did not make war like this in South Africa, but we do not choose our enemy or his methods.

This is why we want an army. We do not want war, and keeping an army fit for defense is the best preventive.

113. Australian mothers have, fortunately, no experience of war, nothing that they can personally feel and instill into their children as yet, until pride in the new national force comes into being. Without it, we must turn to some other motive for the enthusiasm that means success.

Young Australians are fond of open-air life and sport. Drill and maneuvers will give them the former, and the introduction into all their military work of the system of competitions will afford scope for the latter. Properly made use of, there is nothing Australians will not achieve to succeed in what appeals to this sentiment.

114. It is proposed, therefore, to have regimental and brigade competitions in all exercises forming part of military training, and to bring the champion teams of States to Federal competitions for the blue ribbon of the Australian Army.

In this all can help—fathers, mothers, and sisters—by encouraging the spirit of territorial rivalry that results in excellence of work. It only needs the will for Australians to make themselves the best soldiers in the world.

Part III.—EXTRACTS FROM THE REPORT OF AN INSPECTION OF THE MILITARY FORCES OF THE COMMONWEALTH OF AUSTRALIA, BY GEN. SIR IAN HAMILTON, G. C. B., D. S. O.

[Hobart, Apr. 24, 1914.]

I. THE MILITARY INSTITUTIONS OF AUSTRALIA.

HEADQUARTERS ORGANIZATION.

1. The Minister of State for Defense is responsible to Parliament for both the Navy and the Army of the Commonwealth. On matters connected with naval and military policy and expenditure he is advised by a Council of Defense, consisting of himself as president, the treasurer, two naval officers, two military officers, and the consulting military engineer, with the permanent head of the Defense Department as secretary.

The military forces of Australia are controlled and administered by a Military Board, which consists of the following members: The Minister of State for Defense (president), the Chief of the General Staff, the Adjutant General, the Quartermaster General, the Chief of Ordnance, and the finance member, with a secretary from the office of the permanent head of the Defense Department.

The distribution of duties among the members of the board is detailed in Appendix B.

There is also an Inspector General of the military forces whose business it is to review and to report to the minister the practical results of the policy of the Government as administered by the Military Board.

TERRITORIAL ORGANIZATION.

2. The Commonwealth is divided into six military districts (Appendix C), each under a district commandant, assisted by a district staff. The boundaries of the districts are practically coterminous with the six political State boundaries.

The basis of the territorial system is the battalion area, which provides a battalion of senior cadets, and will eventually provide a battalion of Infantry as well as its quota for other arms—Light Horse, Field Artillery, and Garrison Artillery.

Four battalion areas are grouped to form a brigade area, which eventually will furnish an Infantry brigade, one company of Engineers, one of Army Service Corps, and a field ambulance.

For purposes of territorial administration and for the training of senior cadets, each battalion area is subdivided into two or three training areas, each administered by an area officer. There are in all 215 training areas. Area officers are at present temporary appointments. Eventually permanent officers will be appointed as they become available from the Royal Military College. In each battalion area one of the permanent area officers will then act as adjutant of the militia battalion.

A permanent area brigade major supervises the work of the area officers within a brigade area. When Infantry brigades are complete the area brigade major will also be the brigade major of the Infantry brigade.

LIABILITY TO SERVE IN TIME OF WAR.

3. Under section 59 of the defense act all male inhabitants of Australia¹ between the ages of 18 and 60, who have resided therein for six months and are British subjects, shall, in time of war, be liable to serve in the citizen forces, and under section 60 (3) such persons may be called upon to enlist in sequence in five classes according to age, and whether married or single, etc.

LIABILITY FOR SERVICE ABROAD.

4. "Members of the defense force who are members of the military forces shall not be required, unless they voluntarily agree to do so, to serve beyond the limits of the Commonwealth and those of any Territory under the authority of the Commonwealth."—Defense act, section 49.

SCHEME OF TRAINING.

5. Training under the act is prescribed as follows:

Rank.	Age.	Service.	Training.
	<i>Years.</i>	<i>Years.</i>	
Junior cadets.....	12-14	2	Annually: 90 hours.
Senior cadets.....	14-18	4	Annually: 4 whole-day, 12 half-day, and 24 night drills (quarter days). ¹
Citizen forces (militia).....	18-26	8	Annually: In first 7 years' drills equivalent to 16 whole days, of which at least 8 must be in camp. ²

¹ Variations are permissible, provided the total remains the same.

² Artillery and Engineers (as well as those allotted to the naval forces) must train for 25 days annually, of which 17 days must be in camp. In the eighth year militia are required only to attend a registration or muster parade.

CONDITIONS OF ENROLLMENT IN CITIZEN FORCES.

6. Contingent on the necessities of the service, the wishes of individuals are considered in allotment to arms. Only specially selected men are accepted for service with Artillery, Engineers, Army Service Corps, and Army Medical Corps. No cases have occurred where there has been an insufficiency of candidates for service with these special corps.

¹ Subject to certain exemptions.

Service in the Light Horse is voluntary. The recruit provides his own horse.

In other arms voluntary enlistment ceased on 30th June, 1912, but all those serving on that date were permitted to continue their service until the expiry of their period of enlistment, noncommissioned officers being given the privilege of reenlisting for further periods.

The rates of pay for the citizen forces are given in Appendix D.

WAR ORGANIZATION (1919-20).

7. By present arrangements the peace organization of the Australian Army is to be developed to provide in 1919-20 a war organization for a field army, for garrison troops, and for district columns, amounting to 8 Light Horse brigades, 6 Divisions,¹ 2 mixed forces (in fifth and sixth districts), and 1 Infantry brigade.

UNITS STILL TO BE FORMED.

8. The units which have yet to be formed in order to complete the above war organization are as follows (see Appendix E for detail): 6 Light Horse regiments, 4 divisional squadrons, 25 batteries Field Artillery (18-pounder),² 5 batteries Field Artillery (howitzer), 34 ammunition columns, 6½ field companies, 2 signal troops, 2 divisional signal companies, 2 wireless companies. 33 Infantry battalions, 16 companies Army Service Corps, 2 Light Horse field ambulances, and 9 field ambulances.

NUMBERS REQUIRED, 1919-20.

9. In round numbers the war requirements in 1919-20 will be 4,500 officers and 130,500 other ranks; total, 135,000.

NUMBERS AVAILABLE, 1919-20.

10. To meet requirements there will be available, permanent,³ 380 officers, and 2,800 other ranks; militia,⁴ 4,000 officers, 86,000 trained soldiers, 12,500 trained soldiers in their twenty-fifth to twenty-sixth year, 17,000 recruits in their first year of service, a total of 4,380 officers and 118,300 other ranks. The war deficit will therefore be 120 officers and 12,200 other ranks, of whom nearly 7,000 are to be specially enlisted as drivers and for other duties in the Army Service Corps and Army Medical Corps.

The deficiency in officers can be made good from the unattached list and reserve of officers list. The net deficiency in other ranks (about 22,000 if recruits are excluded) must be met by the allotment of members of rifle clubs and by the enlistment of men who have previously served.

¹ Present proposals provide for only two Field Artillery brigades of four-gun batteries, and one four-gun howitzer battery and ammunition column per division.

² Includes three permanent batteries for Light Horse brigades.

³ This establishment includes headquarters and district staffs, many of whom would not be available for the field army or for garrisons. Also includes personnel of six permanent batteries of Field Artillery, as well as the permanent Garrison Artillery and Engineers for defended ports.

⁴ In estimating the numbers available in 1919-20, an annual wastage of 5 per cent has been allowed for mortality, medical unfitness, and other casualties.

RESERVE SERVICE VOLUNTARY.

11. From 1920-21 onward a quota of approximately 12,500 trained men will annually complete their service with the colors, but the defense act only provides for their voluntary enrollment in the reserve forces (sec. 42) on completion of their period of compulsory service.

HORSES AND MECHANICAL TRANSPORT.

12. Approximately 24,000 riding and 25,000 draft and pack horses will be required to provide for war establishment in the year 1919-20. Some 560 riding horses and 1,120 draft horses are available in peace with permanent units and in remount depots.

In Australia there are about 2,250,000 horses, and of these 20 per cent (or 450,000) may be regarded as suitable for military purposes. Section 67 of the defense act provides that any horses can be impressed by officers authorized by the regulations.

A scheme for the registration of horses is at present being formulated.

ARMS, AMMUNITION, CLOTHING, STORES, ETC.

13. It is the definite policy of the Commonwealth Government to equip fully the forces as they are gradually and annually augmented, until they attain their full strength in 1920. Thus in a given year, there are available for use the various articles in possession of the troops and those held ready for issue to the new quota of troops on the 1st of July annually, plus such additional articles as for various reasons are held in stock.

Since the inception of universal training, the department has expended nearly £1,000,000 on the provision of new equipment for troops (not including armament, ammunition, equipment for fixed defense, etc.).

INSTRUCTION OF THE MILITIA.

14. The active militia is instructed by the following professional staff:

	Establishment, 1913-14.		Strength on Feb. 28, 1914.	
	Officers.	Other ranks.	Officers.	Other ranks.
Field Artillery.....	5	24	3	22
Garrison Artillery.....		11		11
Engineers.....		19		15
Light Horse.....	179	560	179	478
Infantry.....				
Senior cadets.....				
Army Service Corps.....	25	12	2	11
Army Medical Corps.....		15		15
Total.....	89	641	84	552

¹ Also perform duties as brigade majors of Light Horse and Infantry brigades and brigade areas or as permanent adjutants of Light Horse regiments and Infantry battalions.

² Also perform duties as assistant directors of transport and supply.

Militia officers and noncommissioned officers are instructed at schools and classes of instruction for the various arms, held under the direction of the General Staff from time to time in each district, at

convenient centers. Those attending are granted subsistence and, in addition, quarters or tentage.

COLLEGES, TECHNICAL SCHOOLS, ETC.

15. From 1916 onward the Royal Military College at Duntroon will produce some 30 graduates annually who will be commissioned in the permanent forces.

Musketry is taught at the Randwick Musketry School, and musketry classes are regularly conducted in each district. A school of gunnery is established at Sydney for the instruction of officers and noncommissioned officers of the permanent and militia Garrison Artillery. Signaling instruction is provided by means of periodical schools held in each district. Field Artillery schools for militia officers and noncommissioned officers are conducted in connection with the practice camps of the permanent batteries.

United service institutions exist, or shortly will exist, at the capital of each State. They are subsidized by the Defense Department. Lectures are given and war games are held at these institutions during the winter months.

NUMBERS TRAINED.

16. The following figures show the strength of the permanent and militia forces during the past 10 years:

Year.	Strength of permanent forces on December 31.	Strength of active citizen forces on December 31.	Year.	Strength of permanent forces on December 31.	Strength of active citizen forces on December 31.
1904.....	1,086	18,524	1909.....	1,262	22,141
1905.....	1,098	19,585	1910.....	1,455	21,877
1906.....	1,116	20,245	1911.....	1,727	21,960
1907.....	1,119	20,170	1912.....	1,998	¹ 33,955
1908.....	1,201	21,936	1913.....	2,468	² 45,915

¹ Includes 16,211 liable for service under universal training obligation.

² Includes 33,601 liable for service under universal training obligation.

SENIOR CADETS.

17. The present senior cadet organization came into force on 1st July, 1911.

There are at present 92 senior cadet battalions, comprising 922 companies with a membership of 2,285 officers (of whom 1,066 are liable for training) and 86,899 senior cadets. Courses for training senior cadet officers and noncommissioned officers are held periodically at various training centers and are well attended, 800 officers and 877 noncommissioned officers having undergone a course since 1st July, 1911.

Senior cadet officers are also permitted to attend the militia infantry schools and to present themselves for the militia infantry officers' examination, those who qualify being granted a militia officers' commission on the unattached list of the military forces. Up to date, 50 senior cadet officers have so qualified and have been granted commissions on the unattached list.

The senior cadets are not required to attend camp.

The estimated expenditure on account of senior cadets for the year 1913-14 is £140,000.

JUNIOR CADETS.

18. The number of boys born in the years 1900 and 1901 who have been medically examined is 50,510, and of these 49,291 were declared fit to undergo training. Training is compulsory in all schools except those situated in districts declared exempt. The number of the schools carrying out the training on 31st December, 1913, was 8,044, with a total of 55,850 junior cadets in training.

One hundred and sixty-nine courses of instruction for teachers were held by the Defense Department between 1st October, 1911, and 31st December, 1913, and 4,103 male and female school-teachers qualified.

The estimated expenditure on junior cadet training for the current year is £26,814. Further details concerning the physical training of boys and girls are given in Appendix F.

RIFLE CLUBS.

19. Rifle clubs constitute the only reserve for the militia forces. Every person accepted as a member is attested in the reserve forces. Members do no military training, but there is a certain proportion of old soldiers, regulars or militia, amongst them, and I have noticed that, when being assembled for inspection or to be addressed, they show themselves capable of performing the more elementary military movements. Altogether, there are 1,133 rifle clubs, with a membership of 47,500, organized in 64 rifle club unions. The unions of each State are formed into a district rifle association, and the Commonwealth council of rifle associations acts as an advisory board to the minister when required. Clubs are entitled to Government rifles on loan, and 230 rounds of ammunition (or 250 rounds of miniature ammunition) for each member annually.

Of the 28,540 members who are fit for active service, 19,700 are allotted on mobilization to units. (See Appendix G.)

Grants not exceeding £150 are allowed toward the construction and maintenance of a rifle range for each club.

The total cost of rifle associations and clubs for the year 1913-14 is estimated at £132,000.

II. NATIONAL ORGANIZATION FOR WAR.

TRAINING SCHEME NOT IN ITSELF SUFFICIENT.

20. The organization of a nation for war is one thing, the military training of its youth is another, and a totally different thing. The attention of Australia has hitherto been concentrated on the training, and naturally so seeing that the inauguration of a system of compulsory service for all boys and young men between the ages of 12 and 26 is a big enough business in itself to engross the whole mind of the nation during the initial stages of the experiment. Nor would the military authorities have been justified in laying the foundations of a real national organization until they gained some assurance by experience of the training system, and by observation of the national attitude to defense questions, as to the scale on which they might

venture to build. Now, however, the time is almost ripe for consolidating all existing forces, national as well as military, into a carefully-planned instrument for war.

SUFFICIENCY OF TRAINED PERSONNEL.

21. Every mobilization scheme starts from the completion of the individual units to their war establishment in men, horses, and equipment of all kinds. In Australia, by 1919-20, when the first batch of trainees are due to leave the colors, all units will be fairly up to the mark in each of these respects. I use the qualification because there will still be some serious gaps. The peace strength of units will be 12,320 short of war establishment or, if the contingent of recruits is eliminated, the deficit will be no less than 29,000 men. Also, there will be a number of extra officers and men required at once on mobilization for the expansion of district staffs, for pay and record offices, for ordnance and supply departments, for remount depots and other existing institutions, as well as for the creation of many lines of communication units. As these needs will quite certainly arise in war, it is better to face the situation in peace time and make some sort of provision for them now.

MAINTENANCE OF AN ARMY IN WAR.

22. Recently I had occasion in Canada to refer, in the following words, to the need for machinery for maintaining an army in the field:

The army possessing no system for its maintenance in the field is like an elephant that has lost its trunk. It starves amidst plenty. All the millions in the United Kingdom could not keep the cadres of the small Crimean Army up to strength because there was no feeding organization in existence. Depot cadres are an indispensable additional adjunct to every field army which is conducted on business principles. A depot establishment calculated at the rate of 50 per cent of the field army is usually taken as the minimum.

I repeat the same thing now in Australia. Not only should numerous depot cadres, with experienced officers and noncommissioned officers be established at once on mobilization, but men, already trained to arms to some extent, should be forthcoming to fill them. Calculating depot requirements at 50 per cent of the field army, about 2,250 officers and 65,250 men would be wanted for this purpose alone, over and above the 29,000 officers and men required to complete the establishments of the field army. To meet this deficiency of approximately 100,000 men, the only asset available would be some 17,000 recruits.

RIFLE CLUBS AS A RESERVE.

23. Under existing arrangements members of rifle clubs are relied on to supply all such deficiencies. As a temporary and provisional measure, this is the best that can be done. At the moment there is no possible substitute. Nor have I a word to say against rifle clubs considered as an adjunct to the militia. In Switzerland they exist in hundreds, with a membership well over 150,000. They are a real national institution; they have considerable esprit de corps; prizes of high value are given for shooting; and the club rifle competitions are to the Cantons much what cricket and football matches are to a

British community. The military authorities recognize their value by giving State grants amounting to about £55,000 per annum, and the rifle clubs justify this recognition both by giving the trainee extra musketry practice and by keeping the reservist well up to the mark.

But in Switzerland there is no idea of regarding the rifle club as an integral part of the militia, in the sense that its members, as such, have a liability to service that is not incumbent on the rest of the nation. It is in every sense a mere adjunct to the militia.

NEED FOR A RESERVE.

24. If, under a militia system, the numbers under training are insufficient to complete the field army itself as well as all its war establishments, there is then only one thing to be done. Adequate reserves should be formed, the system being modified, if necessary, to make this possible. To say that a man is liable to serve his country up to his 60th year shows a patriotic intention: to make it perfectly plain how, and in what way, he is at various periods of his life to carry out his service is to translate vague feeling into that genuine piece of business known as military organization.

The Swiss example illustrates my meaning. There a man's service is normally divided into three categories: Twentieth to thirty-second year in the elite, or active army; thirty-third to fortieth year in the landwehr, or reserve of the active army; forty-first to forty-eighth year in the landsturm, or territorial reserve.

My example is given for the sake of illumination—not of comparison. Australia is not Switzerland, and the only inference I wish drawn is that so long as the rifle clubs form the only reserves for the active army, Australian defense must rest on too narrow a foundation.

Reserve service, be it observed, does not necessarily impose any sort of obligation at all upon the individual in peace.

DEPARTMENTAL ORGANIZATION.

25. The formation of a reserve would serve another purpose, besides that of enabling the active army to be completed to war establishment, and of replenishing its ranks as they were thinned by war casualties. The existence of such a body would greatly facilitate the process of national organization. In my introductory remarks I suggested that much expenditure found necessary in a regular army could be avoided by a militia in time of peace, provided the national resources were adequately organized for war. Thus, for militia purposes, many technical units like railway pioneer corps, railway administrative personnel, works staff for lines of communication, telegraph units, postal corps, and so forth, can be, and should be, provided at trifling cost to army funds if the various departments of State are only willing to cooperate heartily with the military authorities. The soldiers, in such case, have only to explain to the departments what is wanted of them. The actual method of meeting that want had far better be left to the departments to work out for themselves. But it stands to reason that in any case the task of creating such bodies will be very greatly facilitated if, in addition to the trainees belonging to the department, an older class of reservist is also on the spot and available. The work of these departmental corps being almost entirely technical, the amount of military training they require is comparatively limited.

TELEGRAPHS IN WAR.

26. Having said so much I think it will be better if I make myself quite clear by giving an illustration. Let us take the telegraph department. In the event of invasion such portion of the State telegraph system as came within the area of military operations would have to be placed under military control. A military director of telegraphs would have to be appointed and, unquestionably, he should be an official of the department. But he should not come quite raw (militarily speaking) to his important position. He should have held a dormant commission previously in peace which would have enabled him to get into touch with the General Staff, and thus learn what would be expected of him and his department in war. Assistant directors of telegraphs should also be nominated by the department. These men would, in peace, be the technical advisers of the General Staff, as well as being the military advisers of the departmental authorities. They would have a foot in the Defense Department as well as in their own department.

FIELD TELEGRAPH UNITS.

27. But preparation for militarizing, under departmental auspices, any portion or portions of the telegraph system of the country would not, in itself, suffice. The department must also be ready to place units in the field to act in close conjunction with the field army and assist in maintaining communication not only with the permanent telegraph system, but also between the various columns engaged in operations against the enemy. The personnel of such a unit should consist chiefly of skilled operators and linemen—young men who have recently had military experience. Their training in peace should be supervised by the director of telegraphs designated, acting in conjunction with the General Staff. In the selection, organization, and technical training, departmental convenience must come first. I mean that such drill and purely military exercises as may be deemed essential to these men while they are trainees should be carried out with local units whose headquarters were near the men's homes. Otherwise they would be organized on a nonterritorial basis.

These telegraph units, though working ahead of the main telegraph system, and acting under the orders of the army commanders, would still remain an integral portion of their departmental organization. Individually, they would be appointed and replaced in the field and their numbers augmented or decreased, as circumstances might require, under arrangements made by the director of telegraphs.

GENERAL APPLICATION OF THE PRINCIPLE.

28. I have chosen the telegraph department for my example because it shows better than any other department, except perhaps that of railways, the helplessness of the soldier in such matters unless the technical authorities are prepared to come to his aid and organize themselves for war. The telegraph operator is an expert whom the military authorities could not possibly, under a militia system, produce for themselves. He rapidly becomes useless unless he is daily sending and receiving messages, and only the telegraph department

can hope to produce the finished article. Similarly, the Defense Department must rely on the railway authorities, on the public works department, and on the post office, not only to take such steps in peace as will insure their system being readily adapted for military purposes in war, but also for organizing technical personnel on a pioneer basis, so that it may be capable of moving ahead of the main systems and of working in close conjunction with the field armies of the Commonwealth.

TECHNICAL COOPERATION ESSENTIAL.

29. Nor do the great departments of State stand alone in this matter. Under a militia system, where the nation is the army and the army is the nation, every professional body and technical union in the country can, if it will, further the cause of national defense by placing its advice and its machinery at the disposal of the naval and military authorities. Though the army be raised and maintained on the compulsory system, there will ever remain a vast amount of work which must be done by voluntary effort in war time if, that is to say, it is to be done efficiently. The colleges, the institutes, the unions which control the destinies of the doctor, the surgeon, the engineer, the veterinary surgeon, the motorist, and the motorcyclist—every such body can, by taking thought, add its quota to the sum of national safety. National organization for war rests, in the first instance, not with the military authorities of the Commonwealth, but with the nation itself.

III. AREAS AND UNITS.

EXISTING AREA ORGANIZATION.

30. The combination of duties whereby a permanent adjutant finds himself saddled with territorial work is a peace arrangement; it is, that is to say, one of those makeshifts which is hardly distinguishable from a counterfeit. In war, the adjutant would accompany his militia battalion, thus dislocating the entire work of his training area at the identical crucial instant when, under a happier organization, it should justify the years of money and effort expended upon it. True, under existing arrangements, it is proposed to patch up the machine by doubling up two training areas on mobilization so that they will form one war area. As, however, territorial work will be incomparably brisker in war than in peace, it is obvious that if any change at all is to be introduced at such a juncture, it should take the form of halving the area, not of doubling it. But any change at such a moment of transition is military anathema; it means improvisation, and improvisation is equivalent to asking for trouble. Therefore, such a makeshift should only be resorted to if the difficulties in the way of sounder provision are absolutely insuperable.

PERMANENT STAFF FOR UNITS.

31. Lord Kitchener divided the country into 215 training areas, but made no provision for permanent adjutants, nor in his scheme did he definitely allot noncommissioned officers to militia units.

Unfortunately, it is not possible for me, in the absence of Gen. Kirkpatrick, to say exactly what was in the field marshal's mind, or

whether he intended the militia units to work out their own salvation without any professional guidance whatsoever. Possibly he may have so intended and may have had in his mind the analogy of Switzerland, where certainly militia units do exist and flourish without any aid from a regular adjutant.

SWISS CONDITIONS.

32. But if so, I may perhaps be permitted very respectfully to point out that the Swiss, especially the German-speaking Swiss, is a totally different creature in the matter of military character from the Britisher, and still more so from the markedly individualistic Australian.

Secondly, that the danger menacing the Swiss, though not so terrible as that menacing the Australian, is still infinitely more imminent, seeing, so to say, that it crouches for its spring at the very point of his bayonet.

Thirdly, that every Swiss militia officer can, by traveling for three or four hours in a comfortable railway carriage, witness the training and maneuvers of the finest and most formidable armies in the world. The Swiss Government take full advantage of such facilities and constantly dispatch their militia officers to work with the regular troops of the great European powers.

Fourthly, that Switzerland is self-contained and concentrated to an extent a born Australian who has never traveled would hardly be able to imagine. The whole of that country, though it probably exercises as great an influence on the world of ideas as the entire block of central Europe or the United States of America, is only half the size of Tasmania and is probably poorer in natural resources than some quarter of that rich fragment of the Australian continent.¹ Had it not been for the superb military qualities of the Swiss as displayed against the Austrians, Charles the Bold, and Napoleon, no one would ever have heard of them. They would long ago have ceased to exist. But they do exist, and by their very smallness they gain this advantage—that the brigade, divisional, and general staffs can constantly watch and supervise the units and advise the militia adjutant how to direct his steps.

BRITISH CONDITIONS.

33. I mention these points as it may be useful to have them on record. Actually, the impossibility of the Australian Militia dispensing with permanent adjutants had already impressed itself on the Military Board before my arrival, and in so far as it may be proper for me to do so I heartily associate myself with their decision. I have had long and intimate connection with Volunteer, Territorial, Militia, and Special Reserve units in the old country, and I can not imagine how either they or their Australian comrade corps could expect to make real progress without the assistance of a certain modicum of permanent staff.

Things being so, obviously the existing scheme of organization needs reviewing. For neither the finances of the country nor possibly the output of Duntroon would be equal to providing 130 permanent adjutants in addition to 215 permanent area officers, as well as filling the establishment of permanent units, headquarters, and district staffs, etc.

¹ Switzerland, 15,976 square miles; Tasmania, 26,215 square miles.

PROPOSED REORGANIZATION.

34. After discussion with the Adjutant General and with district commandants, it would seem that the only practical solution of the problem is also the best solution, namely, the application now, in peace, of the method best suited to stand the ordeal of war.

Units must be given an adjutant, and that adjutant's duties should be entirely separated from territorial functions.

Simultaneously a process of amalgamation should be undertaken as regards the present training areas.

The existing battalion area should, in future, be taken as "the area." "The area" itself should be subdivided into training areas,¹ each under a permanent noncommissioned officer instructor.

The effect of the proposed change is shown in tabular form in Appendix H. Its effect works out at a figure considerably less than the cost of the present scheme when fully matured.

THE AREA.

35. Not the least of the numerous advantages of such a reorganization is that the authority of one man, the militia battalion commanding officer, will be supreme throughout the battalion area. The whole of the instructional, clerical, and administrative staffs comprised therein will act under his orders, and he will thus be in a position to prevent any clash of interests between militia and cadets. If my proposals on training in Section V are adopted (proposals very closely allied to this question of area organization), the militia commanding officer should be quite as much interested in the efficiency of his cadets (the bulk of whom will join his battalion) as in the efficiency of his own battalion.

STAFF REQUIRED.

36. The permanent staff required for an area should be as follows: 1 adjutant and 1 quartermaster sergeant (warrant officer) to accompany the battalion in war; 1 area officer and 4 to 8 training-area non-commissioned officers to remain in the area on mobilization.

Adjutants and instructors for Light Horse and Artillery and instructors for other arms will be required in addition.

DUTIES OF STAFF.

37. As permanent officers become available I recommend units, rather than areas, having a first call on their services. For a long time to come, therefore, the area work will be carried out as at present by temporary area officers seconded from the militia. It is for the militia commanding officer to fix the respective functions of the adjutant and of the area officer. Normally, the adjutant should attend to all instructional work in the area, both of the militia and of the cadets, the rôle of the area officer being mainly territorial, e. g., registration of cadets, their medical examination, their transfer to the militia, etc.

¹ It has been suggested to me that the expression "training area" is cumbersome and rather meaningless. Some such term as "subarea" might, under my proposals, be more to the point.

WORK IN AREAS.

38. Subject to the militia commanding officer's instructions, the quartermaster sergeant should be considered available to assist the area officer in the care of, and accounting for, the equipment and stores of the area.

For the execution of the clerical work of the area, I recommend the grant of a small weekly allowance, the area officer being left free to make his own arrangements, provided he does not employ any of his training-area noncommissioned officers for this purpose. For one thing, it is extravagant to use a man drawing pay as a skilled instructor for such a purpose; for another, these noncommissioned officers ought to be fully employed with the work of their training areas.

THE BRIGADE MAJOR.

39. Under existing arrangements the brigade major is, like some of the area officers, called on to act in a dual capacity. He is, in peace, the central pivot of the territorial work of the training areas comprised in his brigade area, and he is also brigade major of the Infantry brigade, which he is destined to accompany in war.

Here again is a glaring case of a man serving two masters who will, in time of stress, be obliged to put one of them entirely in the cart. In other words, it is even more pressing to disentangle the brigade major from his peace administrative duties than it is to free the hands of those permanent adjutants who are to be placed in charge of areas.

Therefore, in Section VI, I am making proposals which, if carried out, will cause all correspondence connected with territorial administration and, to a large extent, with unit administration as well, to pass by the brigade major's door altogether, and he should thus be placed in a position where he can apply his mind much more fully to his purely military duties than is now the case.

REORGANIZATION A GRADUAL PROCESS.

40. The proposals made in the preceding paragraphs can not be given effect to immediately, or even simultaneously. The new order of things only becomes possible as permanent adjutants are appointed for militia battalions. Till then the existing training-area officers had better carry on as they are now doing. Similarly, it might be rash, and premature, to relieve area brigade majors forthwith of their present duty of supervising the territorial work of the training areas. Where, however, permanent adjutants for militia battalions have been already appointed and as they are appointed in the future, the new distribution of duties (par. 47) could at once be put into operation in the battalion areas concerned; and, simultaneously, brigade majors might be relieved of all responsibility for the territorial work of those areas.

STAFF PROPOSED IS A MINIMUM.

41. I most earnestly hope that the establishment of noncommissioned officers I have proposed for training areas will not be cut down for financial reasons. Judged by the old country standards fixed for the Territorial force, this establishment makes a very modest showing. Crediting the Australian personnel with all the quickness—all the good will—in the world, still I am convinced that four noncommis-

sioned officers in town areas and eight in country areas are a minimum allowance if the training and instruction, not only of the militiamen but of the cadets as well, is to be properly attended to. For myself, I would prefer to see economies effected in almost any direction rather than by reducing the numbers of the permanent instructional staff.

IV. SYSTEM OF TRAINING.

IMPORTANCE OF RECRUIT TRAINING.

42. The influences which go to mold the human side of a military machine into fighting form are too various and too vast to be stated simply, although the French, with characteristic audacity, have made the attempt with their phrase, "Discipline makes the main force of armies." But, without aiming at so sweeping a definition, we may at least assume that the period wherein discipline itself, plus many other military virtues, is taught to the young recruit, must lie at the root of whatever military efficiency the fully trained soldier may possess.

Hence, in the great standing armies of Europe, we find two or three months dedicated each year to the recruit, the services of an enormous staff of professional officers and noncommissioned officers being kept concentrated upon him during that long period. Hence, too, the fact that the ultimate inspection of the recruits by the higher military authorities is regarded as one of the most important military functions of the whole year. Switzerland, in this matter, makes her militia follow the example of the regular armies, and in the United Kingdom also the Special Reserve, which is the legitimate descendant of the old militia, has a long and thorough period of probationary service.¹

THE AUSTRALIAN EXPERIMENT.

43. In this matter of recruit training Australia has struck out on a line of her own. Australian militiamen undergo a period of recruit training equivalent to 16 days, of which only 8 are spent in camp. If the efficiency of the trainee really depended upon so minute a fleabite of training, the outlook on the far horizons of the twentieth century would be somewhat blue. But the recruits' course will not stand alone—it will have six years' cadet training at its back. The shortness of the Australian recruit training, as compared with the concentrated course which other nations have adopted, is to be compensated for by a very long and thoroughly serious preparation in the grade of cadet. That, at least, is the intention, and strange indeed will it be if a country in which no wars have yet been waged, should at its first serious attempt hit the nail on the head. With courage and perseverance Australia may yet be able to boast that she has shown the way to all the great military powers—to Switzerland and to the old country—of raising powerful armies for home defense with a minimum tax on the priceless time of the adult male worker.

¹ Thus, in Switzerland, recruit training is conducted at certain centers, partly by professional and partly by militia officers and noncommissioned officers. The recruits live for the time being in barracks. The period of training is 65 days in the Infantry and Engineers, 75 days in the Artillery, and 90 days in the Cavalry. In the United Kingdom the recruit training of the Special Reserve is from 4 to 6 months.

EXISTING DIFFICULTIES.

44. But courage and perseverance will be indispensable. There is no use my pretending that Australian cadet training has already justified itself as a full substitute for a prolonged period of adult recruit training. And, if I now feel called on to criticise the cadets as I have found them, it will not, I hope, be thought that I am reflecting in the smallest degree on the lads themselves, or on the authorities from highest to lowest, who are in any way responsible for the execution of the scheme of cadet training. Nothing is further from my thoughts. The authorities at headquarters are keenly alive to the importance of the great work of army building they have on hand; the self-sacrificing efforts of the cadet officers are beyond all praise, and nothing can be finer than the keenness and good will of the cadets. Never have a people put their backs more manfully into the task of making bricks with just about a quarter ration of straw, in which metaphor the cadets may be taken as the bricks and the instructional staff for the straw. For cadet officers have most of them had little experience; professional instructors are few; the militia has had the lion's share of their services, and, hitherto, militia commanding officers have had no real inducement to take an interest in the well-being of their future recruits.

NO NEED FOR PESSIMISM.

45. Small wonder then if militia commanding officers have repeatedly told me that most of their recruits come to them still ignorant of the rudiments of drill—so much so that, too often, the principal difficulty of the battalion instructor lies in eradicating faults due to initial faulty training. So it comes, too, that many officers speak as if the experiment of making cadet training a substitute for a long period of recruit training, as in the Swiss and other regular or militia systems, were bound in the end to fail. But, in so speaking, they have, I am convinced, made too small an allowance for the troubles and difficulties that are inevitable in the inauguration of any original scheme. I myself believe that, with so much good will to work upon, these difficulties will grow less with each succeeding year until, finally, they vanish so completely that the croaker of to-day will be able to pose proudly before his descendants as one of the pioneers of the movement.

LEVELING UP NECESSARY.

46. The striking success achieved wherever environment has happened to be favorable is evidence that Australia is really on the right track, and that the difficulties she is experiencing are only the small but distressing hitches which have taken place in the earlier stages of every and any great invention. All that is required is that in each succeeding year a general heave upwards should be given to the whole system under which cadet training is carried out.

If the Empire understood the full significance of this Australian experiment, prayers would continually be in process of being offered up in the churches for its success. But as most people in the northern hemisphere have been carefully misinformed by interested fanatics,

the Australians will have in the long run to trust to their own good sense and patriotism to pull the business through. Now, here are two of the main conditions for success:

First, the cadet curriculum must be progressive and thoroughly systematized, so that officers commanding militia units may have some assurance that all their recruits, on joining, shall have attained a given standard.

Secondly, the cadet instructors must themselves be worthy, not only in aspiration, but in experience and character, for the performance of the high duty they have undertaken to carry through.

CADETS IN RELATION TO THE MILITIA.

47. Once the curriculum has been systematized the cadets must be brought into the closest relations possible with the militia battalion the bulk of them will join later on in their careers. The militia commanding officer will then have a direct personal interest in promoting the training and the interests of his cadets; the cadets, knowing that their efforts are being watched by their future commander, will play up all they can to please him.

Training can not be considered apart from organization. The welding into a homogeneous whole of the cadet and recruit periods can only be achieved when the authority of one man, the militia commanding officer, has been made supreme throughout an area embracing not only his own battalion but the local cadets as well. In Section IV, I have made proposals which, if given effect to, will render possible this ideal state of affairs. Under these proposals, the instructional staff in areas, and training areas, will be available to instruct indiscriminately both cadet and militia recruits. Thus the present shortage of thoroughly qualified instructors for cadets will, to some extent, be met.

RECRUIT TRAINING IN FUTURE.

48. When the present training scheme has matured some seven-eighths of a battalion will consist of trained soldiers—of men, that is, who have been passed as fit to take their place in the ranks. The further instruction and training of these men should, on principle, rest with the officers and noncommissioned officers who will lead them in war. Too much interference in their instruction by the permanent instructional staff can only tend to destroy the initiative and the self-reliance of the militia officers and noncommissioned officers. Therefore, with every year that passes, the noncommissioned instructor will become more and more free to devote his attention to the cadets in his training area, and to the latest joined recruits who have just left the cadets. Moreover, under my proposals in Section IV, the number of permanent noncommissioned officer instructors in areas will be considerably greater than at present. In these circumstances then the cadets should be able to count on getting a far larger share of the permanent instructor's time than is now possible. If, further, some means could be devised for giving militia officers and noncommissioned officers a direct incentive to train cadets, the path would be quite clear for laying down a standard of efficiency, and that a high one, for cadets in each year of their service. This would

imply progressive training, and progressive training implies variety and interest in the work.

It is too much to expect of any reflective youth that he should keep up his enthusiasm in doing much the same thing over and over again from the age of 14 to 18, when in all other respects he feels himself making such rapid progress. I consider it of vital importance that each year of cadet service should mark the inclusion of at least some subjects differentiating it from the years which have gone before.¹

TRAINING OF THE OFFICER AND NONCOMMISSIONED OFFICER.

49. Militia officers and noncommissioned officers would also be the gainers were their courses of training and instruction worked out on well-considered, systematic lines. The brigade major, acting under his brigadier's orders, is clearly the proper person to supervise this duty, and I have accordingly suggested (par. 49) his being relieved as far as possible of administrative and territorial work. Under my proposals, the energies of the brigade major, and the four permanent adjutants acting under him, would be concentrated on the higher instruction of the militia officer and noncommissioned officer. The noncommissioned officers in charge of training areas should also find themselves much more free than they are at present to undertake the training of the militia recruit, and of the cadet.

Here we have a ship-shape, logical skeleton system where responsibilities are well defined, whilst overlapping and duplication should become the exception instead of being the rule.

ALL TRAINING UNDER GENERAL STAFF.

50. The organization of training on the lines indicated will entail a redistribution of duties at headquarters, and consequently in districts. The distinction hitherto observed between cadet training and militia training, one being under the Adjutant General and the other under the Chief of the General Staff, should cease. In future all training and instruction of a military nature, from the commencement of the senior cadet's service, should be developed and controlled under the auspices of the Chief of the General Staff. The physical training of the junior cadets had better remain for the present with the Adjutant General. Later on, it will be for consideration whether the control of this training also could not with advantage be transferred to the General Staff.

V. OFFICE WORK.

THE WAR SYSTEM.

51. The Field Service Regulations, which are based upon our dearly bought South African experiences, contain the following paragraph:

Office work in the field is to be restricted as to what is absolutely indispensable; no office work will be transacted with a unit of service in the field that can be possibly dealt with at a stationary office.

¹ To work out such a program requires knowledge, experience, and imagination. Besides drill, such subjects as physical training, miniature rifle shooting, scouting, elementary field works, and signaling should be practiced on progressive lines. Occasionally the tedium of drill may be usefully broken by a story culled from military history. The more an instructor attempts the more he is likely to achieve.

To carry out the principle embodied in this extract, "record offices" with specially trained staffs have, since the South African war, been established for every corps and department of the Imperial Army; pay accounting has, as far as circumstances permit, been detached from units under the so-called Dover system, and simple but effective means have been devised for keeping both record and pay offices in touch with the rank and file, no matter where in the world their units may be stationed. Further, army books and forms used on active service have been greatly simplified, and these war forms have wherever practicable replaced the more elaborate documents previously used in peace.

SOUTH AFRICAN EXPERIENCE.

52. In other words, efforts have been made, and are still being made, in the Imperial Army to apply in peace a system which actual, recent war experience has demonstrated will be fairly war proof. The War Office entered upon the South African campaign under the impression that a unit could be made to consume its own smoke in all matters of interior economy. Never were the heads of a department more rudely undeceived. Rarely has any body of men been more freely abused. Yet, judging the matter now more calmly, it may be admitted that no average administrator could have foreseen that when the forces in South Africa were once fairly on the move all traces of any man who left his unit would be lost, alike by relatives and the military authorities, for weeks, months, or sometimes forever. The commanding officer was aware only that the man had disappeared and no machinery existed anywhere for systematically keeping in touch with him. A so-called casualty office was, it is true, hastily improvised at Cape Town and a large number of officers and clerks were therein employed, and certainly improvised methods such as these were better than nothing—and that is about all that could be said.

PREVIOUS SYSTEM.

53. Again, the pay lists which officers commanding squadrons and companies were called on to keep prior to and during the South African war were caviar to the general—not to speak of the subaltern. Even in peace, when the services of trained pay sergeants were available, these accounts were the bane of the average regimental officer. What then could be expected in war, where irregular officers were far too preoccupied with the idea of administering a beating to the enemy to dream of administering anything so tame as a pay sheet? Usually the Gordian knot was cut, as in classic fable, by the sword. No pay lists were kept up at all, and the subsequent business of settling up was a prolonged and a profoundly extravagant operation to that grand old milch cow, the British public.

ADOPTION OF WAR SYSTEM RECOMMENDED.

54. In the minor affairs of war, as in the greatest operations, simplicity, both of conception and design, is the hall mark of the true metal. In Part II, Chapter XVI, of the Field Service Regulations the war system as regards office work—an extremely simple system—is fully described, and I suggest respectfully that this system should,

as far as local conditions admit, be accepted for peace work in Australia. Not only will the transition from a peace to a war footing be thus more easily effected, but under ordinary routine conditions the existing strain of excessive correspondence, whether with units or in staff offices, should be very sensibly eased.

PROCEDURE NECESSARY.

55. One of the first results of revising the present Australian system in the light of the simple and practical war system referred to in the previous paragraph will be the institution of an inquiry into—

(1) How far can units be relieved in peace of the work of registering information regarding the individual militiaman and of preparing his pay account?

(2) Supposing units are to be relieved of the responsibility, where and how should such work be executed?

(3) How is the information affecting the man's record of service and his pay to find its way to the place where his records are kept and his account made up?

(4) To what extent are nonessentials now cumbering the man's record book, and what are bare essentials which must be retained?

WAR SYSTEM OF PAYMENT.

56. If the war system of payment (Field Service Regulations, Pt. II, Ch. XV) can be carried into effect in peace units will gain great relief. The pay accounts of militiamen would then be prepared in the pay office at district headquarters, and units would only be responsible for entering issues of pay on acquittance rolls and in the men's pay books, and also for keeping the pay office informed, by means of regimental orders, of any changes affecting each man's status or rate of pay. To complete the system, the contents of the "Soldier's Pay Book for Use on Active Service" (Army Book 64) should be embodied in the militiaman's record book. This book would then be equivalent to a last pay certificate, and the militiaman would have to produce it before drawing his pay. No better means can be imagined of enhancing its value to its owner.

RECORDS AND RECORD BOOKS.

57. I am doubtful whether, on inquiry, it will be found worth while setting up in peace formal record offices apart from units. The necessary information regarding the soldier's service is at present, and should probably continue to be, recorded at the unit's headquarters. But of this I am certain, that the existing system of recording in duplicate, in the militiaman's record book and in a regimental record book, every detail affecting not only his service, but also his arms, equipment, etc., leads to a huge amount of useless clerical work. Much information that ought to be recorded in a unit is not required by the individual soldier, and vice versa. The record book should therefore be thoroughly overhauled and the information required by the man disentangled from the information required by the unit. Many of the points now entered in the supposed interests of the unit might more appropriately be dealt with by means of equipment ledgers, etc.

CADET RECORDS.

58. The record work of the senior cadets, which is now carried out in the training area, should in future be effected at the headquarters of the battalion area. In fact, under my proposals, this work, plus the registration of cadets and the care of and accounting for their equipment and stores, will form the chief responsibility of the area officer, who should, in future, have little to do with instructional duties.¹ In all that affects the territorial work of cadets, the area officer will have to assist him the noncommissioned officers in charge of training areas. They will be his executive agents throughout the area, and it will be their business to forward to him at area headquarters all necessary information.

RETURNS.

59. Units and area officers should forward returns and statistics affecting the numbers, service, and pay of militiamen, together with the numbers and service of cadets, directly to the Adjutant General's Office at district headquarters. There is no necessity at all for the brigade office being worried with work of this nature. The more direct the channel of communication between the units and areas and district headquarters, the better for everyone. I can not help thinking that some of the returns now called for are either too voluminous or might be rendered less frequently. For instance, the monthly return from area officers (C. M. Form M. 19) might well be rendered quarterly or even half yearly.

ADMINISTRATIVE CORRESPONDENCE.

60. Similarly, unit commanders and area officers should deal directly with the Quartermaster General's Department on all matters which concern that department. Equipment and store indents, store accounts, returns of ammunition expended, and all documents of a similar nature should, in peace, as in war, go straight from the unit to the departmental officer, and vice versa, without passing through any intervening office.

CHANNELS OF CORRESPONDENCE.

61. The only correspondence then between units and district headquarters which need pass through the brigade office is that connected with the work of the Chief of the General Staff and of the Adjutant General, less record office work and territorial registration. A brigadier must be kept in touch with the training of his brigade, with disciplinary questions and with the promotion and appointment of officers from captain's rank upward. But this is about all that he need be troubled with, and, if brigade office correspondence is kept within these limits, one clerk should suffice to deal with it and have plenty of spare time wherewith to assist the brigade major in the instructional work of the brigade.

¹ Although area officers will have larger areas to administer, I do not consider that their duties will, in consequence, be heavier than at present, and there should be no necessity for increasing the pay now given.

VI. DECENTRALIZATION.

WAR CONSIDERATIONS PARAMOUNT.

62. Unlike a regular army, the Australian Militia has no oversea duties or police functions to perform in peace. The force exists for war; by the war test only should it be judged, and the introduction of any sort of peace machinery into its organization is peculiarly unsuitable. In other words, there should be no such thing as an Australian peace system—the system should, from A to Z, have a direct bearing on the exigencies of war.

A PEACE SYSTEM.

63. Such is the theory. Actually, the Australian system as it exists to-day is so purely a product of peace procedure that it could not hope to carry on beyond the first few weeks of war. The centralization in the Defense Department at Melbourne exceeds anything I have experienced during more than 40 years' service in India, in the United Kingdom, and in every part of the world where troops administered by the British War Office are stationed. That this centralization is due wholly to the existing system of financial control I am not prepared to assert, but, unquestionably, it is on financial grounds that the present mass of petty questions, which in a well-ordered business would be dealt with locally, are now referred from districts to headquarters. Hence an inevitable tendency to centralize in other branches of work. Hence, also, an increasing unwillingness on the part of officers to act on their own responsibility. Hence, again, a real danger that, in course of time, the spirit of initiative throughout the army may suffer. Hence, finally, the most fruitful cause of disaster in time of war—namely, the collapse of the officer trained for many years to be frightened to death of a sixpence when he is suddenly called upon to decide a matter in which thousands of pounds may be involved.

RESULTS OF EXISTING SYSTEM.

64. Throughout Australia, district commandants, staff officers, and unit commanders, much as they differ on other points, are unanimous in deploring the steady increase in correspondence, and the equally steady decrease in any result from that correspondence. As a result, the Defense Department is already faced with persistent demands from units for trained clerical assistance; demands which, in present circumstances, can with difficulty be resisted. But not only will the expense of giving such assistance be considerable, but it will be given at the cost of war efficiency, tending as it must to strengthen the purely peace element in the existing system.

Nothing is more certain in an army than that every two or three extra clerks in a district end by creating one more clerk at headquarters. The men are honest according to their lights and work to justify their existence. But the more letters they write, the greater the number of answers. Therefore, the root of the evil must be struck at and the necessity for reference to Melbourne must be restricted.

POSITION AT HEADQUARTERS.

65. The chiefs of the military and administrative departments in the Defense Office at Melbourne are equally the victims of a highly centralized financial system. They are without power, and have not even any subordinates of their own to advise them, where financial questions are concerned. So it comes that the policy of the army, in gross and in detail, is dominated by a finance department, whose military knowledge must be sketchy and whose responsibility can only be described as shadowy.

The urgent necessity at the present juncture is that the military policy of the Commonwealth should be brought into line with financial facts. Only responsible men, possessing real military and administrative knowledge, can do this; only by the agency of such men as these can real economy be effected.

THE UNITED KINGDOM IN 1904.

66. The condition of affairs in the United Kingdom, described by the Esher committee in 1904, is reproduced to-day in an exaggerated form in Australia. In the words of the committee's report—

While the present system of financial control is futile in peace, it is ruinous in war. Officers unaccustomed to bear any financial responsibility, and ruled by excessively complex regulations, can not at once improvise a system for the control of expenditure in the field, when the restraints are suddenly removed. The result as in South Africa, is the waste of millions. * * * By insuring a rigid adherence to elaborate regulations, the finance department doubtless effects small savings; but it does not and can not secure real economy. * * * The theory that military officers of all ranks are, by the fact of wearing uniform, shorn of all business instincts has inevitably tended to produce the laxity which it is supposed to prevent. * * * There can be no doubt that in proportion as officers are accustomed to financial responsibilities, the economy which they alone can secure will be effected.

DECENTRALIZATION ESSENTIAL.

67. The Esher committee further reported as follows:

It seems to have been expected that officers would be able to emancipate themselves from the effects of their peace training as soon as they took the field. Such expectations could not be realized. * * * We are absolutely convinced that if the army is to be trained to exercise the initiative and the independence of judgment which are essential in the field, its peace administration must be effectively decentralized. The object should be to encourage the assumption of responsibility as far as possible.

This decentralization, they realized, would have to be carried out, not in the districts alone, but also in the War Office itself, and they accordingly recommended, and secured, the delegation of certain financial powers to the administrative chiefs at Army headquarters, as well as to officers placed in charge of administration in the districts outside.

COMMAND AND ADMINISTRATION.

68. Insistence on the distinction between the business administration of an army and troop leading lay at the root of the Esher committee's proposals for decentralization. "The training and preparation of His Majesty's forces for war should," they held, "be the first, and, as far as possible, the undivided duties of general officers commanding in chief." Experience has since thoroughly borne out this dictum. As a rule, the born leader of men, assuming he has time for adminis-

trative detail, has little aptitude for it. Even in a professional army, where men devote their whole lives to military work, specialization in all matters pertaining to the art of war, and to troop training, has, under modern conditions, proved to be necessary. How much more then must it be necessary under a militia system?

SPECIALIZATION NECESSARY.

69. Equally vital to a militia army is the specialization of the military administrator. Whether he be a distinguished leader or deeply versed in the science of strategy are minor considerations. Good business aptitude and business training are the real qualifications, when they can be found, coupled with just so much military knowledge as to enable their possessor to meet military demands with intelligence and sympathy. The supply of such men in a militia army will never equal the war demand, unless the principle of specialization is applied in peace so that a certain number of them are gradually evolved by normal processes.

NEED FOR THE BUSINESS MAN

70. On purely military grounds, the maintenance of a clear line of demarcation between the fighting soldier on the one hand, and the military administrator on the other, and the specialization of either for his particular work, can be defended and advocated. Put responsibility for accurate accounts and for war efficiency on the same individual, he is bound to neglect his men and play up to the £ s. d. If he fails in training he may never be found out; if he goes wrong over his accounts he is certain to go to the wall.

As a business proposition, too, the need is obvious for specialized training for the man who has himself to carry out important commercial transactions in peace and war, and has to gauge and report on the capabilities of his business subordinates.

There is further an important political aspect to this question. Neither Parliament nor the treasury nor, in fact, the common sense of the nation, would tolerate any real and wide measure of decentralization in financial matters being effected, unless they were convinced that the men to whom it is proposed to delegate the necessary powers would have both time and business capacity to make the scheme a success. This condition alone is sufficient to preclude the delegation of any wide financial powers to commanders of troops who are not business experts, and who ought to devote the best part of their time to the preparation of their commands for war.

For military reasons then, as well as on commercial and political grounds, the men who are to conduct the financial business transactions of an army should be trained to the work from the start, and it is as business men that they should hope to rise in their profession.

A MILITARY BUSINESS DEPARTMENT.

71. Australian conditions being what they are, I have no hesitation in advising that the institution of a business department in the army, under a business head, is essential to efficiency and economy. The personnel of this department should be homogeneous and interchange-

able as between the various sections into which the department should be divided. (See Appendix I.) In this way only will it be possible to produce, in time, men fitted to be placed in charge of administration in all its branches, both in districts and at headquarters.

If the Australian Army existed for peace only, there would be good grounds for giving the whole of the new department a purely civilian character. The peace work of the department could, during most of the year, be done by civilians as well as by men with military rank and title, but, during maneuvers and in war, the military character of the administrator must be recognized in all matters where financial responsibility is not concerned. He must wear uniform; he must be under military discipline; and he must himself have powers of discipline over his own personnel, and over all military subordinates with whom he may be brought in contact. Further, his position will certainly be strengthened, and his power for good enhanced, if he possesses a recognized military title.

For supply and transport work, for ordnance duties, for the functions of the Pay Department, and for the clerical establishment in military offices military rank and status are, in my opinion, absolutely essential; and, on grounds of homogeneity, I recommend their general adoption throughout the whole department.

HOMOGENEITY ESSENTIAL.

72. The evils arising from a lack of homogeneity are well exemplified in the existing state of the Ordnance Department, two-thirds of whose members are under the Defense Department and one-third under the public service commissioner. I venture to suggest that not a soul, either in the Ordnance Department itself or outside of it, can be found to defend this system, or rather want of system. I have had the advantage of studying a report by Maj. Austin, of the Imperial Army Ordnance Department, in which he recommends the formation of a military ordnance corps in Australia. With many of his recommendations I am in agreement. Under my proposals, however, the ordnance personnel of the Australian Army will, in future, form an integral portion of the new business department, wearing its uniform and conforming to the rules governing it as a whole. The formation of the ordnance section in the new department is one of the many matters which should claim the early attention of the new business chief, who will, I am convinced, find Maj. Austin's report of much assistance.

CHIEF OF ORDNANCE'S DEPARTMENT.

73. The institution of the new business department and a strict observance of the duties assigned to the Chief of the General Staff and to the Adjutant General, will render the retention of the Chief of Ordnance's Department unnecessary. A system which places the command and administration of the Corps of Artillery and Engineers apart from the rest of the Army is a bad system, and should be abolished forthwith. It is reminiscent of a state of affairs which, even in pre-Crimean days, was hardly tolerable. The administration of the personnel of these corps should rest with the Adjutant General to the same extent that the administration of the other arms is vested in his department: and their training, as well as coast defense policy,

should be controlled by the Chief of the General Staff. The purely administrative functions of the Chief of Ordnance's Department should be transferred to the new business department.

Duties, like the control of factories and the erection of works which, in London, are assigned to the Master General of Ordnance, are in Australia carried out elsewhere, or by other means. Any need therefore for the Chief of Ordnance's Department is not apparent under the new conditions.

FINANCE THE CENTRAL FEATURE.

74. Among the duties assigned to the new department would be the compilation of the Parliamentary estimate, the accounting for all sums expended by the Defense Department, cash payments, the examination of accounts, and the provision of the financial personnel required to assist the other branches of the Defense Department. Accordingly the creation in it of a special finance section is essential. It should also be the central section of the new department. The bulk of the powers now vested in the finance member could at once be transferred to it, and all necessity for a finance member and for a separate finance department would disappear. In this way large economies should ensue both directly, owing to the absorption of a finance department that is separate from the main administrative work of the army, and indirectly, by the disappearance of interminable correspondence which will result when financial control and administrative responsibility are amalgamated under one head. The members of the existing finance department would find ample scope for their special knowledge both in the central section of the new department, as well as in the administrative branches which it is proposed to set up in districts.

The auditor general should make the necessary arrangements for a proper audit of military accounts and stores, and any duplication of audit within the department itself would appear to be an unnecessary expense.

FORMATION OF THE NEW DEPARTMENT.

75. The new department should therefore be formed, in the first instance, by absorbing into it the existing Army Service Corps as well as such members of the Ordnance Department, of the existing pay branch, of the corps of military staff clerks, and of the Quartermaster General's, Chief of Ordnance's, and finance member's departments as may be required. The new departmental corps as a whole might be known as the Australian Army Service Corps. It should be recruited by young men from 18 to 20 years of age selected by competitive examinations. Officers of the combatant branches up to, say, 24 years of age might also be permitted to enter the department after passing a qualifying examination. A probationary period of at least a year should be a *sine qua non* for everyone who enters the department. Every officer should, at an early stage, serve for a period in the central section of the department. Promotion throughout the department should be by selection. The responsibility for reporting on the business capabilities of subordinates should rest with their departmental superiors.

TENURE OF APPOINTMENTS.

76. For men engaged in administrative work fixity of tenure is of greater importance than for those occupied in purely military duties. It is part of my conception of a well-organized business department that its members should receive their appointments and should be removable only at the instigation of the head of the department, who should be allowed considerable latitude in determining how long his subordinates should remain in any particular post. At the same time, steps should be taken to prevent the occupant of any administrative post, particularly in districts, from wielding too much power and influence owing to his tenure of office exceeding unduly the period of four years, to which the appointment of commandants and of the representatives of other departments is limited. Moreover, care should be taken to keep administrative officials at Army headquarters in thorough touch with the life of the Army, and there should be a constant and well-calculated interchange of all ranks between the Defense Office at Melbourne and the administrative branches in the districts. The tenure of appointments in the administrative department might reasonably be fixed at six years.

THE HEAD OF THE DEPARTMENT.

77. In the course of time, when the new department has been in existence for some years, I have little doubt but that it will be capable of producing men fitted in every respect to control its destinies. When that day arrives, one man, and one man alone, who, on the British analogy, I would term the Quartermaster General, should be placed in charge of the business administration of the Army. I realize, however, that in present circumstances it will be most difficult to find any one man possessing such business qualifications and, at the same time, such knowledge of military conditions as would fit him to undertake the considerable burden of responsibility that control of the new department will entail. Moreover, it is above all things necessary that the head of the new department should possess the entire confidence of the financial authorities of the Commonwealth. After the honorable Minister for Defense he, more than anyone else, will be looked to to secure the economical working of the whole military machine, as well as conformity to the rules which Parliament and the treasury apply to all expenditure.

If such a man is appointed, it is to be hoped that he will be given ample powers for the purpose, and that he and those working under him will receive sympathetic treatment, both from the nation and the Army, during what necessarily will prove to be the trying and difficult period of initiation. He might be styled the Comptroller General of Military Administration, and the Quartermaster General would act under him as his second in command. The Comptroller General should be a member of the Military Board.

A CIVILIAN REQUIRED TEMPORARILY.

78. Such a man can not, I am convinced, be found within the ranks of the Army itself and for the present, therefore, a civilian of knowledge and experience and well versed in the public affairs of the Commonwealth should be specially appointed to supervise the inauguration of the new department. One advantage of a temporary arrange-

ment of this nature would be that either the Comptroller General himself or the Quartermaster General would be in a position to devote much time to superintending the building up of the new business branches in the districts. In this matter personal supervision and encouragement would be worth reams of complex instructions or regulations. I trust that it will be understood from the first that the appointment of the Comptroller General would be a temporary measure lasting for a few years only, and that it would be dispensed with as soon as the new department could be trusted to run alone.

THE DEPARTMENTAL CHIEFS.

79. The danger of the Comptroller General's Department setting up a new financial autocracy must be guarded against.

It is a cardinal feature of the system of decentralization I advocate that the financial responsibility of all departmental heads at headquarters, and of their representatives in the districts, should be more fully emphasized than is now the case. Such responsibility is best defined by the vote or votes each department or section of a department is called on to prepare or administer. (Appendix J.) Thus, the preparation of votes for all personnel should be specifically assigned to the Adjutant General's Department, and not an officer or man ought to be added to, or deducted from, the establishment of the Army, either on the military or on the administrative side, nor should changes in the pay and emoluments of officers or men be carried out, except through the Adjutant General's estimate schedule. Similarly, votes for education and training, on both the military and administrative sides, should be prepared in the department of the Chief of the General Staff, and the allocation of training grants to districts should be made on his advice.¹ Even in the Quartermaster General's Department itself, care must be taken that financial control is not unduly centralized in the central section, and the responsibility of the other sections of the department for the preparation and administration of their vote, or parts of votes, should be adequately safeguarded.

MINISTERIAL RESPONSIBILITY.

80. Nothing said in the previous paragraph is meant to imply that ministerial responsibility for, and control over, military expenditure should be in the least degree weakened. This responsibility and control should continue to be exercised, as heretofore, through the permanent head of the Defense Department.

All that is wanted is that wider discretion than now should be given to the Chief of the General Staff, to the Adjutant General, and to the Comptroller General of Military Administration (or the Quartermaster General), over the expenditure of the sums voted by Parliament for their respective departments. They, in their turn, should be encouraged gradually to delegate financial powers to their subordinates in the districts. It is in this way, and in this way only, that any measure of real decentralization can be ultimately attained.

¹ I strongly advocate money for education and training, outside the statutory camp training, being intrusted to the Chief of the General Staff in the form of a block training grant which he might allocate as he thinks fit. This plan has proved most successful at home, and 25 per cent better value is obtained from the block grant than from the same sum of money meticulously apportioned under different headings. Officers and men are ready to make considerable pecuniary sacrifices if they know that the training grant gains by their self-abnegation.

RELATION OF NEW DEPARTMENT TO OTHERS.

81. To enable the Chief of the General Staff and the Adjutant General to shoulder the responsibility thus placed with them, expert financial assistance should, on their requisition, be forthcoming for their departments. The necessary arrangements for providing this expert personnel should be made by the Comptroller General. By this means the financial soundness of proposals formulated by and of estimates prepared in these departments should be sufficiently guaranteed.

In future, therefore, the responsibility of the new finance section, vis-à-vis, the other departments of the Army, should be limited to accounting, providing such financial assistance as the other departments may require, and embodying their estimates in the Parliamentary estimate. It will not be any part of its business to criticize or query the policy of the other departments. Such criticism can be undertaken by the Comptroller General (or by the Quartermaster General) only in his capacity as a member of the Military Board. On the other hand, the other branches of the Defense Department must learn to rely on the Quartermaster General's Department for their accounting, arrangements being made for keeping them informed periodically as to how their account stands. A General Staff officer attempting to keep an account of a training or education grant is like a swan on the shore, i. e., out of his proper setting.

THE PERMANENT HEAD'S OFFICE.

82. To enable the Minister of Defense to exercise efficient control over the work of the military departments, a couple of financial experts should be added to the existing establishment of the permanent head's office. Like the rest of the personnel of this office, they should be civilians appointed by the public service commission. By this means the permanent head should be enabled to supply accurate information, not only affecting the general policy of the Army, but also concerning the financial bearing of proposals submitted by the departmental heads for the minister's consideration.

Moreover, financial work connected with the purely civilian establishments of the Army will be transacted in the permanent head's office.

THE POSITION AT HEADQUARTERS IN FUTURE.

83. Thus far I have dealt mainly with the organization of work at Army headquarters. Under my proposals the delegation of financial power to the different heads of departments should, without weakening ministerial responsibility or control, become more of a reality than it is at present. If each member completely accepts the responsibility thus assigned to him, centralization of power in any one department should, in future, be impossible.

Most important of all, the system I advocate will be a war system. Machinery will be created in peace which should enable the Chief of the General Staff, the Adjutant General, and the Quartermaster General, or their representatives with an army in the field, to carry out the duties assigned to them in war under the terms of the Field Service Regulations.

THE BUSINESS BRANCH IN A DISTRICT.

84. I come now to the state of affairs in districts as it should be under the proposed system. Under the commandant of the district, the three military departments at Army headquarters will be duly represented, and the functions of these representatives will be defined broadly in accordance with the duties assigned to the various members of the Military Board, in so far as those duties are carried out locally. Thus under the commandant, war policy and war training in the district will be the care of the General Staff officer, and both the Adjutant General's and Quartermaster General's Departments should look to him and seek his advice where such matters are concerned. Similarly, the administration of personnel and the elaboration of local routine policy in peace would be vested in the Adjutant General's representative. Subject to the general direction and supervision of the district commandant, the work of the Quartermaster General's Department should be carried out in conformity with the broad lines of war and peace policy conceived by the other departments. In matters of discipline, and for all purely military purposes, there will be no distinction between the departments as regards their relations to the commandant. These relations will, in fact, remain much what they are at present.

RESPONSIBILITY OF ITS HEAD.

85. It is in the very important matter of financial responsibility that a change will have to make itself felt in districts, particularly as affecting the position which the local head of the Quartermaster General's Department will assume. Financially he will be responsible directly to his departmental chief, and not to his commandant. He personally will be responsible that moneys allocated for expenditure in the district are not exceeded, and that they are expended and accounted for in accordance with treasury regulations. He, too, will be personally responsible for the accuracy of the district estimates. The local estimates should, it is true, be signed by the commandant as well as by the Quartermaster's General's representative, but the commandant's signature amounts merely to a notification that the policy the estimates stand for meets with his approval. The Quartermaster General's representative alone will certify the accuracy of the estimate.

OVERRULING THE ADMINISTRATIVE OFFICER.

86. In war, and in emergency in peace, it is essential that the commander of troops should possess the power of overruling the administrative officer, even where his financial responsibility is concerned, but it may be taken for granted that this power will very rarely be exercised. By overruling the administrative officer the commander would, ipso facto, take fullest financial responsibility on his own shoulders, and he would have to be prepared to face all the consequences of his action. As a protection to the administrative officer, whose financial responsibility is thus interfered with, it was the rule in our Army at a time when a civilian commissariat branch existed, and it is the rule in the Navy to-day, that he has the right of represen-

tation and explanation directly to his own administrative chief. Both the power of overruling and the right of representation should be embodied in the standing orders of the Australian military forces when the new system is instituted.

GENERAL POSITIONS IN DISTRICTS.

87. It goes without saying that the smooth working of this system, as of every other system, will depend on the good will of all concerned. Commandants and military officers will have to realize that the financial resources at the disposal of the administrative officers are not unlimited, and that policy in all directions must be brought into accord with financial and business exigencies. It may be hoped that they will in time come to regard the head of the local business branch as a friend who is ever ready to help them as far as his powers permit, and as a man who will endeavor to make money allocated for purely military purposes—for instance, the educational and training votes—go as far as good administration will allow.

Equally, the members of the administrative departments must remember that they are an integral portion of the Army; that its efficiency and well-being are as much their concern as the concern of the other departments, and their constant endeavor must be, subject to economical considerations, to make their work conform to the general line of policy laid down by the commandant. But they must ever bear in mind that it is by their actions as business men that their own reputations and the name of their corps will stand or fall. Nothing can excuse business incapacity.

DECENTRALIZATION IMPOSSIBLE WITHOUT A CHANGE.

88. Finally, I would say that in the foregoing paragraphs of this chapter are embodied my response to the district commandants who have, during my inspections, with one accord, begged me to endeavor to devise a method of relieving them from the harassing burden of administrative responsibility now resting on their shoulders. Each of them in turn has pointed out to me that the mass of detail he has to attend to, in coordinating the work of the big administrative sections, makes undue inroads on his time, and that his touch with the troops as well as with the training and military instruction of young officers suffers sadly in consequence. I have done my best, and I myself at least am firmly of the opinion that only on the lines I have indicated can any hope of real relief be reasonably expected.

Actual decentralization it is not in my power to guarantee. That must rest with the departmental chiefs at headquarters, and it will of necessity be a gradual process. All I can attempt to do is to devise a system which will render possible a real measure of decentralization without at the same time overwhelming commanders of troops with a mass of detail. I earnestly hope that the necessary machinery will be instituted at an early date and that subsequently the members of the Military Board, individually and collectively, will see to it that district offices shall become something more than mere post offices for correspondence from units and areas to the department at Melbourne.

VII. THE ARMY TO-DAY.

CHARACTERISTICS OF THE MILITIA.

89. The best assets of the Australian land forces at their present stage of development are to be found in the natural soldierlike spirit, in the intelligence, and in the wiry, athletic frames of the bulk of the rank and file. Their limitations are those inherent in every militia—aye, even the far-famed militia of Switzerland.

Patriotism, keenness, study, and careful instruction strain and struggle upon the heels of practical experience and habits of discipline, but rarely quite catch them up. For these in a regular army are the product of years of continuous service, and until a militia has been called out for service and has been some time in the field it will always for this reason lack self-confidence when faced by professional soldiers.

It is well to emphasize these immutable principles at the start, for they bring all my remarks into proper perspective and should act as a steadier to those who affect to despise their potential enemies, an attitude only one degree less bad than the present-day English habit of despising or affecting to despise their own defenders.

Admitting that the Australian Army of to-day is necessarily short of practical experience and is never embodied long enough for discipline to become a second nature, what are the substitutes? Theory must do what it can to take the place of practice in the field, and where discipline can not be absorbed as a habit, it can at least be cordially acquiesced in as a right and reasonable rule of military conduct.

TRAINING.

90. In the preceding paragraph I have put into the shape of advice what is actually taking place in the majority perhaps—certainly in a large number—of Australian Militia units. In such corps all ranks have done their very best by close study of the books of regulation to prepare themselves to take full advantage of their brief period of practice training in camp. Often the outpost sentry is word perfect in reeling off the duties he has to perform; the section leader in a defensive position sees to it that his men are well under cover and have a good field of fire; the subalterns have clear and generally sound theories as to the functions of scouts, supports, and reserves; their seniors have educated themselves into an examination proof grip of the tactical principles governing the use of advanced and rear guards, flank attack, covering fire, etc. All this is admirable, and it is only when theory has to be translated on to the ground that the lack of the ounce of practice begins to betray the lightness of the ton of theory.

91. The sentry is so eager to see the enemy that he neglects to conceal himself, thus giving away the outpost positions; the commander of the picket puts four times more sentry groups out than are necessary to do the work; the section leader forgets to get in touch with troops on his flanks and is ignorant of their whereabouts; the advanced guard commander passes down a valley without crowning the heights; the commander of a support makes his men lie down in the open 50 yards behind the fighting line and encourages the comrades to whom he has brought assistance by shooting them through the head.

92. The foregoing transcript, taken from my diary, of some failings to make theory correspond with practice is not as serious as it might appear.

First, the bullet is the finest and cleverest instructor in the world and would straighten out many of these little errors in a flash. Analyzed it will be found that they are failures in the power of realizing the unreal—failures, that is to say, of the imagination. The best cure for these is a leaden pill in a nickel envelope.

Secondly, Territorials and militiamen all over the world do precisely the same sort of things, and he who believes that Regulars themselves are altogether exempt takes them at their own valuation.

But the bullet charges high fees for its lesson, and two black strangers can not make one white Australian.

93. A great deal can be done to strengthen the practical side of training in Australia by leveling up the higher criticism brought to bear upon camp training. A noncommissioned officer is rarely capable of giving higher tactical instruction. He should confine himself mainly to teaching cadets and recruits. For the kind of work I am considering an officer—a highly educated one at that—a man whose views have been widened by travel and by maneuver working with the three arms combined would be able to do a very great deal of good. The Duntroon graduate should, in due course, produce the very type, especially if he is encouraged to see something of the great outside military world. Such a man once appointed should be left free to devote himself mainly to the higher instruction of the militia officers and noncommissioned officers, who must themselves be the instructors of their men. The strong point of the Army is in its men—men at the same time intelligent and bidable. The weak point of the Army lies in the comparatively small number of its officers who are capable of giving good instruction. This will come in time—it is coming all the time—but there is the weakest spot of to-day.

94. Once the mass of the officers gain sufficient experience and self-confidence to enable them to speak as true commanders and guides to their men the secret of creating some spirit of true discipline in a modern democratic army will have been solved. From the General Staff at headquarters through district commandants and brigade majors, through battalion commanders and permanent adjutants, through company officers down to the men in the ranks the current of progressive thought will flow in a sustained and systematic stream.¹

95. Turning to the syllabus along which the Army is being trained this year,² I think it is in all respects well adapted to its objects. As to the execution thereof, I have one comment of universal application to make. It is necessary that much of the training should be elementary, especially this year and next year. But officers engaged in instructing their men must bear in mind that elementary work means work simplified, not work twisted out of its true shape into something unpractical. Strip the problem down to its skeleton; leave, if it must be, only the backbone, but let that backbone at least retain its own vital marrow. Suppose the recruit is being given an object lesson in outpost work and is shown a picket, its support, its group of sentries, a patrol, a detached post, and an examining party. This would be too much for him to take in all at once, so the idea has to be simplified. Take away everything except the picket and one sentry, point out where the main body is supposed to be reposing, and the

¹ Vide my proposals in Sec. V.

² Memorandum of training, 1913-14.

dullest recruit will probably grasp the general principle underlying the service of security.

96. But in carrying out this simplification be careful to let that specimen picket be placed where a picket might be placed on service, and let the sentry be posted where a reasonable picket commander might feel the need of a sentry. If, on the plea of the lesson being "only elementary," the picket would be visible to the enemy whilst the sentry is placed down in a hole from whence he can not see 100 yards, why, then, instead of being elementary the instruction has merely been detrimental. The recruit will remember having seen that sentry wasted upon a hollow long after he has forgotten all the wise explanations of his tutor. I have been driven to make these observations owing to the frequency with which it has seemed to me to be assumed that it did not matter how unreal an object lesson might be provided it was to be served up to beginners.

DISCIPLINE.

97. I freely confess that my recollections of South Africa, coupled with the assurances of numerous Australian friends, had caused me to feel skeptical regarding the quality of the discipline I should find regulating the ranks of the Army. But if I came here prepared to ban, I can only say now I was mistaken.

98. The Australian soldier is very amenable to discipline. That a contrary impression should be so prevalent is due to the following facts:

(1) There are not yet competent commanders enough to go round.

(2) Manifestations of any feeling, but more especially of feelings of respect, are discountenanced under the unwritten Australian code of conduct.

(3) The private soldier does not clearly understand that what an officer is is one thing and that what he stands for is another, and, militarily speaking, the significant thing.

99. So long as the commander knows his job and realizes accurately his relation to the lads intrusted to him by their parent—the State—for instruction there is no cause for misgivings as to Australian discipline. I believe, indeed, that with a little trouble the men could be brought a step further and made to understand that even when they have good, practical reasons for believing that they are as clever and as competent as their officer, still they are bound by patriotism and by regard for the honor of the regiment to salute him and obey him with as much respect as if he was Marlborough and Wellington combined.

100. Materialistic misconception of the significance of a military salute is prevalent only because the ethics of military psychology have not hitherto attracted the attention of the Australian intellect. An officer giving a command is not expressing his own wishes—he is for the nonce acting as the mouthpiece of the State—conveying to other servants of the State temporarily intrusted to his charge, the supreme will of the people.

101. Conversely, a private soldier does not salute his officer because he likes him, or because he, the private soldier, is in any way an inferior being, but because he sees passing before him the personification of the sovereign State, which, in this case, has decreed that it is to be recognized by a formal salutation. The personality of the officer has no more to do with the matter than the personality of a corpse has effect on the crowd who respectfully doff their hats as the procession winds past them.

102. I trust then that officers and men will by degrees learn to be more punctilious on this point of the salute, which, small though it may seem, yet is liable to give rise to false impressions, not only amongst outsiders, but also in the heart of the Army. As to the essential, namely, the readiness of the Australian soldier to obey, and follow a leader who knows his business—on that score the military authorities may be quite reassured.

MUSKETRY.

103. Every one is agreed upon the importance to an army of a high standard of musketry. Men may be able to ride well, to march long distances, to maneuver rapidly; all these accomplishments may only serve as a means of escaping from the enemy unless they are able to do credit to the wonderful modern magazine rifle they carry.

Consciousness of being a marksman is a great moral support in battle. The soldier who doubts whether he can hit the advancing foe is twice as likely to run away as the soldier who knows he can break a bottle at a hundred yards three shots out of four.

In a militia force, progressive training and economy of time are essential, and both these desiderata will be best served by giving the young idea a thoroughly sound grounding in musketry. From the moment a senior cadet first handles a rifle, the serious business of his musketry training should be steadily kept in view.

104. At present the musketry instruction of the senior cadets can hardly be said to hit the bull's-eye plumb center. They are being taught to shoot with a weapon quite different from that which is in the hands of the militia. Trigger pressing, aiming, adjustment of sights, and the action of the rifle, all have to be relearned on transfer. The want of trained instructors shows up the more clearly at musketry than in any other branch of training. The commandant of the School of musketry reports that, in many instances, senior cadet musketry is worse than useless owing to the mistaken notion that it is more important to show a good percentage of cadets as having fired range practices than a smaller number effectively trained. Thus do faulty trigger pressing and gun shyness tend to become chronic. More miniature ranges and more instructional stores are badly wanted for cadets, but here, as I have said earlier in my report, impatience must wait upon money.

105. I am sorry to have to report that, judging by the results of the annual course of musketry for last year, the standard of musketry can only be classed as third rate.¹ Especially is this the case in the Infantry, where too large a percentage are shown as "not exercised." Also, many officers in charge of machine-gun sections are not qualified to handle these weapons, although, in the hands of untrained men, machine guns are apt to be a two-edged weapon.

Nature has done her best for the Australian in this matter of shooting. She has fitted him out with a keen vision, long limbs, and just the right sort of shooter's nerve, tense, but controlled. Whence then these disappointing results?

The chief causes appear to me to be—

(a) Lack of sufficient range accommodation, particularly in metropolitan areas; (b) a tendency to rush men through their range prac-

¹ I do not use this word in any technical sense, but merely to denote my personal opinion as to the actual standard compared with what it might be.

tices before they have completed their preliminary training; (c) the want of qualified instructors and instructional stores.

106. Subject to what I have already said as to funds, there are certainly few, if any, shortcomings of the Australian military machine upon which money would be better spent than these bearing on musketry. I summarize the remedies as briefly as I can —

(a) Supervision over musketry throughout the Commonwealth to be strengthened; (b) the School of Musketry to be made capable of instructing, in time, the whole of the instructional staffs as well as all machine-gun officers; (c) citizen officers and noncommissioned officers to be encouraged to qualify themselves to train their men; (d) senior cadet musketry to be systematized on progressive lines.

107. Speaking as ex-commandant of Hythe Musketry School, I feel confident I am not suggesting extravagance when I submit that the staff of the excellent School of Musketry at Randwick needs some strengthening. The commandant should be enabled to devote a part of his attention to supervising the musketry of the Army as a whole, and an officer should be appointed as chief instructor, who could take his place at the school whenever he might be absent on inspection work. For five years I had to inspect the whole of the musketry in India, and I am perfectly certain that any officer who conscientiously carries out work of this nature will have scant leisure to devote to the details of school work. Further, in each district there should be at least one officer who is capable of holding the local courses of musketry instruction for militia officers and noncommissioned officers.

108. The importance of increasing full as well as miniature range accommodation is so obvious that I do not here press the point. Neither miniature ranges nor ammunition used on them would cost very much, whereas the instruction imparted is of great value. Men thoroughly trained on a miniature range have surprisingly little to learn on the open ranges.

109. The system of cadet musketry should be revised. Until the last year of cadet service practice should be confined to shooting with the miniature rifle, and, as funds admit, it will be found of great advantage if, in all essentials, such as trigger pressing, sights, etc., these miniature rifles are similar to the service weapon. In Great Britain, in Canada, and in the United States of America cadets are normally instructed to shoot with the miniature of the service weapon they will use in later years. In the last year of senior cadet service, those who have passed the standards in grouping with the miniature rifle might be permitted to fire a recruits' course of musketry with the service weapon.

LIGHT HORSE.

110. The Light Horse are the most typically Australian of any of the Commonwealth troops. Physically the men seem to have been built by nature to fulfill a Cavalry commander's ideal; all ranks are exceedingly keen; they ride boldly and well, and are clever and quick at getting about the country. In fact, a large proportion of the recruits join with half the trade of a mounted soldier at their fingers' ends.

Although lamentation over the deterioration of the waler is a standing dish at all reunions of officers belonging to mounted corps, the

horses are actually of a sound and suitable stamp. Some of them are on the light side, but, as a rule, they are not wanting in quality. With one exception, all brigadiers and commanding officers I spoke to on the subject seemed well satisfied with the new saddles.

111. Cohesion, control, and horse mastership are the qualities which the Light Horse inevitably lack. I say inevitably, because, with the short time available for training, it would be too much to expect of any men that they should develop high standards of steadiness or revolutionize their preconceived notions of the way to work a horse. But, admitting all this, there is still ample scope for improvement even under existing conditions, and, what is more, I am convinced that it will gradually come about. The reason for my conviction is that it was the lack of that very cohesion and of the art of sparing horses which was recognized by all of us as the weak spot of the Australian contingents in South Africa. But the Light Horse have made good progress since those days, and the improvement is steadily going on all the time.

112. With only moderate cohesion, a small body, such as a squadron or even a regiment, may march and maneuver; without good cohesion, any larger body of Light Horse will soon find itself in disarray and confusion. In the old days the Australian contingents used up their horses as if each man had only to go out on the veldt and round up, or select from some friendly corps, another. To-day a Light Horse regiment would make its mounts last twice the time; in the near future I believe they will really come to understand the priceless value of a good and fit charger in peace or war.

113. The remedies are in the hands of the officers, particularly the junior officers. The men must look more to the troop leaders, whether in movement or in the firing line, and as the young officers improve in knowledge so they will gain power and grip over their men. This will give improved discipline, from which follows the closer cohesion that is required. Individually the men move quickly; it is rapidity of collected maneuver of troops, squadrons, and regiments toward some common objective that must now be superimposed upon that good foundation. The same as regards stable management. Officers must make an earnest study of this subject and must see to it that whether in camp or in the field their men are constantly thinking of their horses.

114. To give point to the foregoing remarks I may as well give an example. The most instructive of my inspections of Light Horse took place early one morning when my official visit was supposed to be over and when I was believed to be, and had meant to be, miles away from the training ground.

However, it was my fortune, so it happened, to motor past a Light Horse encampment on a fine summer's morning about half an hour after the force had started work upon a tactical scheme. First, I met the leading squadrons working along in very good style toward the enemy's position. Behind them were several squadrons making up lost distance, moving toward the front somewhat rapidly, without much order, covering the whole width of the road, and in depth taking up at least four or five times the proper distance. Next came a squadron which had evidently started late, moving on either side of the road at a gallop. Last of all, as I passed the camp itself, single horsemen were

still issuing from the gates of the paddock, most of them at full gallop, in a desperate hurry to join their comrades at the front.

115. Here was lack of camp discipline and precision and want of care of horseflesh. Most of these men had not fallen in on parade and their squadron had moved on without them. This was irregular, and although no reflection on the fighting value of the individuals, yet a reflection, certainly, on the war value of the unit. Much depends upon a good start and perfect steadiness in getting away from camp. The impression made in the camp follows the horseman into the field. As to the horses, all owners in this horse-loving land will understand that only imperative necessity can justify a long day's work being commenced at a furious pace.

116. To improve troop and squadron control, field days, where a force as large as a whole brigade is in action, should be exceptional, and the work should be confined for the present mainly to squadron training. I have several times heard of the idea of combined camps for the three arms mooted by senior officers, but whilst these would afford valuable experiences for commanders and staffs, from the point of view of the units I would prefer for some years to come, and until there are trainees of long service in the ranks, if an occasional training could be given to one unit at a time. The whole of the instructional staff of the brigade can then be employed with each regiment in turn.

117. In reconnoissance more use should be made of patrols and the best men should be sent out. Protective patrols generally worked intelligently and well, though on several occasions, not being boldly enough pushed out, they could not have given the main body sufficient warning of an attack to allow it to extricate itself in time from a low and difficult position. But as regards the individual savvy and quickness of all ranks I have nothing but praise.

118. Ground scouting gains an added importance in the country over which I have seen the Light Horse working; much time can be saved in movement if early intimation is given of the gates and pass-ways in the paddock fences.

On one or two occasions I found the officers weak in map reading, and a compass would have been helpful.

119. In message writing, Field Service Regulations lay down places for the address, number, date, place sent from, etc; this may seem a trivial matter, in reality it is important. While a reconnoissance is going on, the staff of a mounted brigade receives a large number of messages; if these are not written in proper form, valuable time is wasted in hunting out where the information comes from, and so on. Moreover, the writer is less likely to forget details when there is a place laid down for each one. A patrol that collects information and does not transmit it is useless.

120. Recruited as they are, a large proportion of the men of the Light Horse are able to shoe their own horses. Both in camp and on mobilization men should have shoes in their shoe pockets ready fitted for their horses.

121. The Light Horse have no barrack squares, but possess instead the whole of their native land, a magnificent training ground, to work over; the officers should make all possible use of it to teach object lessons; in the stress of war men will remember what they have seen better than what they have been told.

122. I have made certain criticisms on the Light Horse. I do not wish to leave the subject without again expressing my high appreciation of their value to-day, and the confidence I feel as to their future. An invader would necessarily be very weak in the cavalry arm, and the Light Horse would have the time of their lives with his communications and with his scouting and foraging parties. When battle was joined they would also play their part, for I can assure the Commonwealth that they possess to-day a formidable arm in their Light Horse—the sort of men any commander would like to have at his back in war.

FIELD ARTILLERY.

123. In the earlier days of the home Territorials the most common and, on the platform, most effective form of attack upon the force took the shape of sarcasms levelled at the Field Artillery units. How, it was asked by the indignant orator, could a highly technical arm, an arm that had always remained a mystery even to himself, be mastered by mere citizens? Well, the thing has been done, at least to the extent that the Field Artillery are now cited by the supporters and not by the depreciators of the Territorials.

124. So here in the Commonwealth, the facts being that, first, there is no mystery about artillery; secondly, that a special type of recruit—and a very excellent type—is always attracted by that arm of the service from which Napoleon arose to power.

The Field Artillery furnish a first-class example of the willing, eager spirit that pervades the Commonwealth to-day. Although a longer period of training is required than in the Infantry, there is not the smallest difficulty in getting trainees to apply to join. The authorities have, indeed, to pick and choose their men from the numbers pressing forward to undertake the more arduous duty. Having once elected for the Artillery, the trainees play the game handsomely and give their time generously, with both hands, to the State. Throughout the year they continue to put in voluntary attendances at training drills, amounting in many cases to quite a large number, and I am glad, indeed, to be able to report that all this keenness finds reflection in the work of the batteries in the field.

125. Some of the instruction now being given is of the highest order, and the technical training of the firing battery is in safe hands. I have seen a considerable amount of successful practice at simple targets and also, naturally, some which showed very clearly the need of longer training and greater experience.

The following hints may be of some service to the officers: Time spent in reconnaissance is seldom wasted; this principle and a ready imagination will carry a battery commander far on the road to victory. Want of imagination—want of power to borrow the enemy's point of view—is a downhill attribute. Example: On one occasion a battery trotted into action under cover, raising, as it went, a high column of dust, which must have given a hostile battery all the information it required; a little thought and the battery would have walked up and opened fire without any indication to the enemy of its position.

126. Here, per contra, is a favorable note from my diary:

At camp the battery staff, even in highly trained batteries apt to move anyhow, pressed forward smartly as a compact, cohesive body and kept well under cover till it was wanted.

Some of the junior officers naturally show their lack of experience every now and then. Thus, an occasion rises to my mind when the battery leader, relying on the tracking powers of the second trumpeter, led the battery into the thickest part of a thick wood, instead of to the position selected by the battery commander.

127. The horses are generally suitable, and one or two of the batteries I saw were very well mounted indeed.

The driving in many cases was capital—it was even surprising. The Australian driver, though he may come from a town district, when he is brought under good instruction, develops a fine confidence and dash in a remarkably short time. Necessity is the mother of progress as well as of invention. Paddocks studded thick with stumps of big trees force the men to drive well or to take very bad spills.

Most of the batteries I have seen at continuous training possess good standards of camp discipline and stable management, points that will tell strongly in their favor in war.

128. I have spoken hitherto of the better-trained units that have been inspected. I have seen others attempting work beyond their present powers—batteries that should have been employed learning the very rudiments of their work. Two of these batteries are not yet ready for war. That is to say, they are not yet capable of moving smartly off the road to take up a position and open fire therefrom.

129. As the words “ready for war” used in the preceding paragraph may give rise to some misapprehension, I must clearly explain that I do not by that phrase mean to imply that even the efficient batteries of the Commonwealth Field Artillery are yet, collectively, trained up to the level required of the Artillery of an army working in masses together in the field. They have not had time yet, or opportunity, to practice that higher control and power of combination outside the battery, without which there can be no real fire cooperation.

130. Then again there is the problem of handling that great mass of ammunition supply which lies behind the guns in action. Even within the batteries themselves this problem has hardly been attacked, I have only seen batteries working with their firing battery wagons; the first line wagons have not been in action. Whether higher training of this sort can ever satisfactorily be carried through in the present period of training is questionable. If not, then it must simply be recognized that although the batteries may be “ready for war” as they stand, the Field Artillery as a whole will not be fit for handling in the mass during a pitched battle until they have been embodied and have worked together for a further period of at least several weeks.

GARRISON ARTILLERY.

131. I have inspected the bulk of the Garrison Artillery, both permanent and militia, on their manning parades, and at work on the guns.

The Royal Australian Garrison Artillery are men of fine physique; they are very steady on parade and smart at their gun drill. A few of them struck me as being rather on the old side for work requiring vigor and force. In time of stress efficiency might suffer in consequence. I refer to this matter later on (par. 184) under the head of "Pensions."

132. The soldiers of the militia Garrison Artillery are also a well set up, athletic lot of young fellows, very keen indeed, and quite up to the work required of them.

The only practice over a sea range that I saw was carried out by a militia unit. The drill was smart, and the rate of fire and effect would have been creditable to any troops.

133. I noticed a small deficiency in equipment; the lack of canvas shoes for work with the modern gun mountings; without them the danger of slipping is considerable. They are now in use in the Imperial service.

ENGINEERS.

134. The Engineers of all ranks are conspicuous for the intelligent capacity with which they tackle their business.

There is cause here for gratification—none for surprise. The officers are architects or civil engineers; the rank and file are specially selected from the trades cognate to the work they have to perform as soldiers.

Hence, even with the short period of military training available, the higher technical work of running searchlights, with their engines and dynamos, is carried on with perfect ease by the citizen soldiers of Australia. They have nothing to learn here, so far as I can see, from any regular instructor.

If only some arrangement could be made for insuring that the searchlight sections of the militia could be available during the short but dangerous precautionary period which may precede mobilization, I see no reason for retaining electric light Engineers on a permanent basis. The Garrison Artillery might act as caretakers of the searchlights and their engines.

135. When the submarines actually en route from England arrive, submarine mining, now in the hands of the Engineers, will, I presume, be either abolished, or handed over to the Navy, as has been done elsewhere. I assume also that "works" will continue to be carried out by the department for home affairs. Under a militia system there can not be room for two works departments in the same country.

In these circumstances, then, there would appear to be little or no scope for the employment of a permanent Engineer Corps upon any of the duties referred to in the two previous paragraphs.

136. Besides searchlight work, the Engineer militia has to deal with pioneer work of all kinds in the field, as well as with communication service. Here specialized military knowledge is essential, and more technical instruction is wanted than is now available. Good value would be obtained if pioneer schools were established in central positions to which the officers and noncommissioned officers of Engineer units could be sent for instruction. Pioneer classes for other arms might also be usefully held from time to time at these schools. The advantage a permanent school possesses is that instruments, equipment, and models can be maintained there which

the traveling instructor lacks. A couple of permanent instructors with half a dozen permanent assistants should suffice for the needs of each school.

INFANTRY.

137. I have now seen the greater portion of the Australian Infantry—four brigades and several single battalions at maneuver camps, the remainder on ceremonial parades.

I wish very much I could transplant 10,000 of these young soldiers to Salisbury Plain. They would do the croakers good and make them less frightened of other nations, who have no overseas children getting ready to lend them a hand.

138. Most of the officers are keen and resourceful. I was particularly struck by the clear and capable manner in which captains gave their story at my conferences, or when called upon to explain a situation in the field. On the other hand, a proportion of the senior officers, even of the commanding officers, do not possess the nerve or calm essential to any one occupying positions so responsible. I have not concerned myself with personal detail, not conceiving it my duty to report on individuals, and from this attitude I shall not depart. But I state my broad impression so that the responsible Australian authority may know where there is scope for his vigilance.

139. The majority of the noncommissioned officers and men are still very young, but they are full of intelligence and grit. On at least two occasions I have seen brigades tested severely, once by heat and heavy marching, the other time by floods and mud. In each case the men made light of their trying experiences, treating them as an excellent joke.

140. In my general remarks at the commencement of this chapter I referred to the distinction between an elementary lesson and an unreal lesson. With the Infantry, whose training is not varied and enlivened either by the horse, as in the Cavalry and Artillery, or by technical work, as in the Engineers, Army Service Corps, or Medical Services, it is specially important to bear in mind another distinction, namely, that which exists between elementary work and dull work.

141. I will give an instance. On one occasion all companies were ordered out to practice advanced guards. I supervised several of the exercises. The captain explained the situation, apportioned the responsibility, and told off his officers and men to their respective tasks. Then the company moved off. From that moment there was little more to be learned and therefore little more interest, provided only distances were maintained. The company marched on and on, preceded and flanked by scouts, first the vanguard, then the main guard—and nothing happened. There was no enemy; there was no contretemps. Why? Because it had been arranged that the work on that day was to be elementary.

142. Well, but I maintain that even in the elementary stages better value might be got of one of those afternoons in camp which are so priceless because so few. Suppose that instead of all companies doing advanced guards, one company formed outposts, and that an advanced guard company from a distance of 2 miles were marched in such a direction that it must strike that outpost? The scouts of the subaltern commanding the vanguard detect the outpost sentry, or

do not detect him and are fired on by the outpost. They report to the vanguard commander, who has to push forward and occupy as good a fire position as he can and send back a written report to his captain commanding the main guard. The captain, in his turn, must determine what to do, and issue orders. Again, the outpost commander is warned by his sentry, and brings his picket into fighting position, at the same time writing a report to the commander of the main force.

143. It may be said that the young officers have never practiced writing such reports, and that the rank and file are not yet trained enough to take up a fire position. Some sort of a report the officers will perforce write, and as to the troops, in such small numbers they will get there somehow. Everyone will make mistakes of course, but, then, I say, let them make mistakes. The more the better, from an instructor's point of view, for he, like the literary critic, lives upon the errors of others.

Not only would more be learned by the scheme I have suggested than by practicing for several hours the mechanism of a movement that can be learned in 10 minutes, but everyone would be interested, and a power of stimulating interest is the hall-mark of a good teacher.

144. I trust this little example of mine will not be twisted into a theory that soldiers should begin to run before they can walk. Not at all. Only, under the particular conditions obtaining in the Australian Army, it is well that a long drill should, at the end, get into touch, even faultily, and for a few minutes, with the reality for which it is meant to be a preparation.

ARMY SERVICE CORPS.

145. The Army Service Corps have always distinguished themselves on my parades by their excellent turnout and bearing. I have made it my business to examine as closely as time would admit into their work in the camps, work upon which the well-being and content of the rest of the troops closely hinge. A suitable selection in trades makes it easy for them to fall into their various tasks.

But I consider that on certain occasions too much demand has been made on their strength, and a slight increase to their establishment of trainees appears to me advisable. Also, it would be well if the companies, with their transport, could be brought into camp the day before the rest of the troops. Some hire of transport would thus be saved, and the depot could be got into working order to meet the first rush.

When moving on roads, march discipline assumes great importance; a column of transport must either keep to the left half of the road or arrangements for clearing the road rapidly from the rear must be practiced as a matter of drill.

Altogether, this is a highly satisfactory and efficient branch of the Commonwealth service.

ARMY MEDICAL CORPS.

146. The system of attaching the field units of the Army Medical Corps to combatant units during the periods of continuous training is much to be commended as being excellent training for war.

In every camp inspected, I have visited the hospital tents; the beds were, fortunately, for the most part empty; the rare occupants that I found were receiving every care and attention.

The drivers of the ambulance wagons are efficient; all ranks take the keenest professional pride in their duties, and the turnout and general appearance on ceremonial parades have struck me favorably.

AVIATION.

147. The Flying School was visited at a fortunate moment. One of the new B. E. machines had been finished the night before, and was ready to take the air.

The situation of the school is ideal; it is well away from interference by the public; it has a sea front; there is nothing on the land side to break up the wind; and there is good landing ground everywhere for many miles. The new sheds and workshops are progressing well, and are conveniently placed, with plenty of room for eventual expansion. The two instructors are fine steady fliers, and, more important still, have great experience in teaching.

148. The equipment consists of a Bristol instructional machine, two B. E.'s, and two Deperdussin monoplanes. The Bristol machine, with 50-horsepower Gnome engine, is the type on which the majority of British pilots have taken their brevets, and is a good machine for the purpose. The B. E.'s are of the usual Government type, and were in part constructed by the Bristol Co. The rudderposts are not sufficiently rigid, and it is proposed to braze on two fins set at 90°, which will probably remedy the defect. The petrol gauge is not visible to the pilot when a passenger is carried; this should be remedied. The present tanks only hold enough petrol for about one and a half hours' flying, but this need not interfere with the utility of the machines for instructional purposes. The machine that was ready had been very well trued up; although the engine had not been tuned to its normal revolutions, the machine flew very steadily with a passenger in a somewhat bumpy condition of the air.

The two Deperdussin machines with 35-horsepower Aazani engines will be useful for ground work to accustom learners to the controls and to sitting behind their wings; it would be dangerous to allow them off the ground—at any rate, pupils should on no account be permitted to make a turn in the air with them.

149. For the present, it is proposed to teach in each year a limited number of officers of the permanent and militia forces and a limited number of mechanics.

A beginning has been made with military aviation in Australia, and the Government have decided to continue. I venture, with much respect, to submit that in so deciding they have been well advised. True, the aeroplane is a new arm, and there are heavy calls being made on the Commonwealth purse to keep the older arms in the van of progress. But, although from this point of view it might seem prudent to hold back in the matter of flying, on the other hand Australia should just as much aim at being ultimate mistress of her own air as she is of her own land and sea. Therefore, the sooner she makes a beginning at being self-contained in the matter of flying the better.

Proceeding on this assumption it is necessary for me to point out that, unless certain equipment is added, the money already spent,

and the money about to be spent, in running expenses of the school will, to a great extent, be wasted. With only one instructional machine, it is inevitable that the pupils will be retained in expensive idleness at frequent and, often, for long intervals. Nor do I think it altogether safe to send pupils straight from the 50-horsepower instructional machine to the fast B. E. Also, it may very likely come to be considered necessary in the near future that sea planes should be provided as an adjunct to the navy. But flying is not learned on sea planes but on aeroplanes.

150. I therefore recommend the provision of two additional machines for instruction, say Bristol biplanes, with 80-horsepower engines; these would provide intermediate instruction in preparation for the fast work. They could, I believe, be obtained at a first cost of under £2,000. Then, again, the governing factor with regard to the B. E. machines will be the Renault engines, and unless a spare engine is provided both machines will often be out of action at the same time. In the alternative, two Maurice Farman's might be substituted for the 80-horsepower Bristol's, at a rather larger cost—this would give two more Renault engines, which would be interchangeable with the engines of the B. E. machines.

The two sheds and repair shop now building, with the aeroplane tent already in use, should give sufficient accommodation for the extra machines recommended.

THE ROYAL MILITARY COLLEGE.

151. I inspected Duntroon on the 30th and 31st March, bringing to bear upon my task recollections of West Point in the States, and of two visits to Kingston, Canada, not to speak of Sandhurst or of continental military colleges. Duntroon has been at work for three years, and the good that has already been accomplished reflects the highest credit on the commandant and his staff.

The aim of the collegiate authorities has been to form character through a thorough system of discipline, and in this I firmly believe eminent success has been achieved. Indeed, a happier-looking, smarter, keener lot of boys it would be impossible to imagine.

152. The commandant reported favorably on the work done in study; I myself was able to form a clear opinion on the field work. Battalion drill was excellently carried out under the orders of senior cadets; the boys handled their arms brilliantly. The senior cadets had been given a thorough grounding in practical Light Horse, Field Artillery, and Engineer work, which will stand them in good stead in whatever branch they may serve.

The system of interior economy appeared to function smoothly, and the boys' rooms were a model of neatness and good order. I approve entirely of the arrangements for the pay and equipment, which are a direct incentive to a modest, unostentatious style of living.

153. The framing of a complete curriculum for the four years' course is rendered a little difficult by lack of explicit and authoritative rulings as to how the young officers are to be employed on leaving the college. If my proposals for the organization of a business department are adopted, the number of cadets passing through Duntroon may have to be curtailed. In any event, fewer officers will be

required than was anticipated (see Appendix H), and this fact must, to some extent, affect the output from the college.

154. I earnestly hope that Lord Kitchener's proposal to attach young officers for a time to units of the Imperial forces will be carried through. Keeping in view the problems that face Australia in the eastern seas, I would suggest that India offers unique opportunities for these young officers to imbibe the spirit and principles of the British troops with whom they may some day stand shoulder to shoulder, and, generally, to study the characteristics of Asiatics.

PENSIONS FOR THE PERMANENT FORCE.

155. Pensions are things which lie out on a sort of Tom Tidler's ground midway between military organization and State policy. It is optional to me, therefore, to pass on and look the other way, or to run on to the debatable territory and perhaps get caught. One good excuse and three fair reasons impel me to adventure upon the latter course of action:

(1) Lord Kitchener referred to pensions in his report (par. 44).

(2) The shadow of the indigent veteran has dogged my footsteps throughout my tour.

(3) The first cadets from Duntroon are graduating and it may discourage them, on the outset of their career, if they see old officers who have done distinguished service reduced to taking junior clerkships in order to save their families from destitution.

(4) Wherever regulations are pitiless there is a tendency for the divine emotion of pity to reassert itself in some irregular, and therefore, harmful way. An old officer or noncommissioned officer comes to the end of his tether. It is patent to all the Army that his useful sphere of service has already been exceeded, but no one wants to see him, on that account, struggling with starvation. What happens? The tender heart of authority is touched. The time-expired veteran is extended. Thereby work suffers and hope deferred makes sick the hearts of dozens of anxious juniors.

The Canadian Government has recently instituted a contributory pension scheme for its officers, which is, I was given to understand, working admirably.

THE GOVERNMENT FACTORIES.

156. Every superintendent went out of his way to show me as much as possible during my visits to the factories under the control of the Department of Defense. But, in default of a staff of experts, I am not competent to submit any detailed analysis, and I merely comment on a few points that came within my notice.

The good conditions under which the employees work is a credit to the Commonwealth Government, who here set a fine standard, not only before private employers, but also to other older and wealthier Governments.

157. Though no expert, I have carefully inspected on previous occasions the Birmingham Small Arms, Enfield, and the Ross Rifle Factory at Quebec. Lithgow is equipped with thoroughly modern machinery, such as magnetic chucks and, what seemed to me, a particularly effective rifling machine. I noticed that the oil employed in the furnaces allows of nice adjustments in temperature.

158. The sooner Australia stands on its own legs in the production of munitions of war the better. The experiments now being made at the small-arms factory at Lithgow in the direction of replacing continental walnut by Queensland maple in the manufacture of stocks, are so much to the good. The cost per rifle must also be viewed from this standpoint of a self-contained Australia. Even if this cost remains permanently higher than the normal price at home, a rifle stands on a different platform from dry goods or machinery. Only the State must see to it that advantage is not taken of a department being a close borough to make the price too high.

159. I think myself it might be well if an independent expert from the home factories were invited to come over every few years to visit the Lithgow works. Whilst I was at Quebec a talented expert had come out from England to examine. He locked the stable door; but already, alas, a very expensive horse had found its way down the long lane to which there is no turning.

160. Taking into account the conditions of labor, the cost of locally produced acetone, and the fact that the machinery has only recently been installed, I consider that the price at which cordite is produced at Maribyrnong compares favorably with home prices. Whenever the proposed manufacture of gun cordite is commenced, the cleaning of the cotton will have to be carried out on a higher and more expensive scale.

Lead linings to the boiling vats are being tried at Waltham Abbey with good results, and I would recommend that a similar experiment should be tried in Australia.

161. Army clothing is a favorite topic of complaint all the world over. During my inspections I have heard a few growls about the uniforms supplied to the citizen forces, but certainly it is smart and serviceable. Most of the representations made to me concerned the cadets, and were to the effect that lighter material should be issued for summer wear, as the boys found the present heavy shirts, breeches, and putties very trying in the hot weather. I merely echo these remarks for what the authorities may consider them to be worth.

162. The harness factory obtains that independent government examination of its products which I have recommended for the other establishments.

The Commonwealth pattern girth, which I saw in the making, I consider a capital type of article.

IX. CONCLUSION.

163. Of all the misrepresentations bandied to and fro on the subject of the Territorial forces of the old country the most gross and palpable has always seemed to me to be embodied in the statement that these citizen soldiers would not be ready to fight until six months after a declaration of war. If Englishmen and Scotchmen had really fallen so far away behind the standards of former generations, then, obviously, no amount of expenditure in money or service would suffice to prolong the existence of so wretched a race of beings. Actually the Territorial forces of the United Kingdom are not only ready, but burning, to fight the moment an enemy will oblige them by landing on British shores. But however monstrous an aspersion

may be, if it lives on, it will usually be found that it can lay claim to being some sort of distant poor relation to the truth, the truth in this case being that they would fight less effectively to-morrow than after six months' embodiment.

164. So also with Australia's Army of to-day, and it is my object in these last lines to state how far they would be ready did the occasion rise now—at once—to hold their own against disciplined troops from regions washed by the Pacific.

The whole of the Regulars and three-fourths of the actual serving militia are sufficiently trained to take part in a modern battle—supposing the occasion to arise the day after to-morrow. With two weeks' warning the remaining fourth of the militia, plus some 20,000 of the flower of the rifle clubs, would be available as reinforcements. Were the Australian forces then defeated, the defense of the country would resolve itself into a guerrilla problem, where at once it passes beyond the reckonings of recognized military science.

165. I have said that three-fourths of the actual serving militia may be relied upon to fight against any force of invaders in the open field, and certainly to kill a good number of them. By this I mean to say that a large proportion of the Australian forces have not only the willing spirit but also the technical instruction and discipline to enable one man to handle them during a concentration as well as in action. But now the further question arises, How would they fare upon the battle field? My own opinion is that, giving all due weight to the moral factor (i. e., that the men would be defending a country well worth defending and would be very angry)—giving, I say, due weight to this factor and to the advantage they would possess in knowing how to work over their own peculiar paddocks and bush—they would need to be in a majority of at least two to one to fight a pitched battle with picked regular troops from overseas on equal terms. Comparative lack of discipline and cohesion showing up strongly where large forces were involved—these are my reasons for allowing so large a margin of superiority to the invading forces.

166. Everyone will form his own opinion upon my estimate. At best it is but a paper estimate and open to a hundred qualifications and suppositions. Still it is an attempt to convey an opinion, and the only difference between my opinion and the opinions of those who may hereafter traverse it is that I am paid to give my views, and also that not many Europeans have been privileged to inspect as I have the native troops of India, the United States Regulars, the Japanese Army, the French, German, and Russian detachments in in Asia, and the reformed Chinese troops.

167. Finally, no one can have studied this report without understanding that each year, between now and 1919–20, the units of the Australian Army should improve in efficiency at the rate of something certainly not less than 10 per cent per annum.

APPENDIXES.

APPENDIX A.—Statement showing amounts expended on defense for each of the last 10 years.

Year.	Naval.			Military.			Total defense expenditure.
	Cost of maintenance.	Other expenditure. ¹	Total.	Cost of maintenance.	Other expenditure. ²	Total.	
1904-5.....	£47,991	£151,551	£199,542	£510,512	£223,007	£733,519	£933,061
1905-6.....	46,180	205,688	251,868	520,370	197,765	718,135	970,003
1906-7.....	51,725	204,151	255,876	558,734	220,505	779,239	1,035,115
1907-8.....	56,449	454,897	511,346	602,094	221,065	823,159	1,334,505
1908-9.....	60,653	207,452	268,105	654,014	128,361	782,375	1,050,480
1909-10.....	64,468	265,643	330,111	897,264	308,417	1,205,681	1,535,792
1910-11.....	103,753	1,371,250	1,475,003	1,045,226	488,476	1,533,702	3,008,705
1911-12.....	264,295	1,385,095	1,649,390	1,446,872	983,777	2,430,649	4,080,039
1912-13.....	633,305	1,027,273	1,660,578	1,604,115	1,062,805	2,670,920	4,331,498
1913-14 (estimated)....	902,453	1,528,965	2,431,418	1,910,262	1,405,173	3,315,435	* 5,746,853

¹ Includes expenditure on naval works, buildings, sites, rents, and repairs; arms, equipment, etc., construction of fleet; payment under naval agreement act.

² Includes expenditure on buildings, sites, etc., rent, repairs, etc., rifle ranges, military stores; interest on transferred properties; miscellaneous.

³ Estimated that a saving of £500,000 will be effected on this sum.

APPENDIX B.—Military forces of the Commonwealth—Duties assigned to each member of the Military Board.

The Chief of the General Staff is charged with all preparation for war, as follows: Organization for war, training, and instruction other than that allotted to the Adjutant General, education and examination for first appointment and promotion of officers, field operations and promulgation of operation orders, schemes for maneuvers, including concentration, allocation of funds for maneuvers and training, plans of concentration for war, preparation and maintenance of defense schemes, military libraries, intelligence, drill books and manuals dealing with training and military instruction and war organization, censorship.	The Adjutant General is charged with the enrolment, organization, and mobilization of the troops, as follows: Registration, exemptions, medical inspection organization, peace establishments, recruiting and recruit training, musketry, discipline, medical services and sanitation, distribution of units, editing and issuing orders other than operation orders and military books of regulations, editing and issuing mobilization orders, administration of and questions relating to administrative and instructional staff, military clerks, personnel, education and examination of soldiers, appointments, promotion, retirement, posting, exchange and transfer of officers, mobilization of personnel, military prisons and police and detention barracks, military and martial law, duties in aid of the civil power, casualties, discharges, desertion, and fraudulent enlistment, medals, ceremonial, rifle clubs and reserves, cadets, chaplains, postal services.	The Quartermaster General is charged with the equipment and maintenance of the troops, as follows: Regulations for universal training, dress, transport and remounts, veterinary services, movements by land and sea, conveyance of stores, railways, appropriation and equipment of barracks, supply of food, forage, clothing, arms and ammunition, stores and equipment, mobilization arrangements connected with the above services, administration of corps dealing with the above services.	The Chief of Ordnance is charged with the questions relating to armaments, fixed defenses, and Engineer services, as follows: Arrangements for the construction and maintenance of fortifications, barracks, store buildings, and ranges, patterns, provision, inspection, and maintenance of armaments and vehicles, patents, and inventions, administration of the staff and permanent force connected with the above, technical instruction of Artillery and Engineers, including schools, promulgation of changes in war material.	The finance member will be charged with military finance, as follows: Consideration and compilation of Parliamentary estimates, review of proposals for new expenditure, or the redistribution of the sums allotted to the different subheads of defense votes, financial advice, treasury requirements, claims, compensation—death or injury.
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APPENDIX C.

Military district.	Number of brigade areas.	Number of battalion areas.	Number of training areas.
First.....	3	12	31
Second.....	8	32	72
Third.....	7	29	65
Fourth.....	2	9	23
Fifth.....	1	6	15
Sixth.....	1	4	11
Total.....	22	192	217

¹ Proposed to form only 88 battalions before 1920.

APPENDIX D.—*Rates of pay for citizen forces.*

Rank.	Artillery and Engineers— 25 days per annum.		Other arms—16 days per annum.	
	Rate per whole day.	Amount per annum.	Rate per whole day.	Amount per annum.
Colonel or brigadier.....	£ s. d. 2 5 0	£ s. d. 56 5 0	£ s. d. 2 5 0	£ s. d. 36 0 0
Lieutenant colonel.....	1 17 6	46 17 6	1 17 6	30 0 0
Major.....	1 10 0	37 10 0	1 10 0	24 0 0
Captain.....	1 2 6	28 2 6	1 2 6	18 0 0
Lieutenant, second lieutenant.....	15 0	18 15 0	15 0	12 0 0
Regimental sergeant major.....	12 0	15 0 0	12 0	9 12 0
Company sergeant major.....	11 0	13 15 0	11 0	8 15 0
Sergeant.....	10 0	12 10 0	10 0	8 0 0
Corporal.....	9 0	11 5 0	9 0	7 4 0
Private.....	4 0	5 0 0	4 0	3 4 0
Recruits.....	3 0	3 15 0	3 0	2 8 0

Half-day parades shall be paid for at one-half and night drills at one-quarter of the above rates.

HORSE ALLOWANCE.

Officers and soldiers of Light Horse units shall be granted horse allowance at the rate of 5s. per diem for each mounted parade attended, provided that the total amount paid to an officer or soldier in any one year shall not exceed £4.

Payment of horse allowance to be made at times of payment of militia pay, i. e., (a) In camp of continuous training, or on return from camp, at discretion of commandant; (b) in the month of June of each financial year.

APPENDIX E.—Table showing the units yet to be formed to complete divisions, Light Horse brigades, and other field formations by 1919–20, but excluding administration units for lines of communication.

Units, etc., required to complete.	Military district.						Total.
	First.	Second.	Third	Fourth	Fifth.	Sixth.	
Divisional headquarters.....							6
Light Horse:							
Light Horse brigade headquarters.....		1	1				2
Light Horse regiments.....		3	3				6
Divisional squadrons.....		1	1	2			4
Field Artillery:							
Divisional Artillery headquarters.....							6
Field Artillery brigade headquarters.....	1	2	3	1	1	1	9
Field batteries:							
18-pounders ¹	3	8	10	2	1	1	25
Howitzer.....	1	1	2	1			5
Ammunition columns:							
Light Horse brigade.....	1	3	3	1			8
Field Artillery brigade.....	2	4	5	1	1	1	14
Field Artillery (howitzer) battery.....	1	2	2	1			6
Divisional.....							6
Engineers:							
Divisional Engineers, headquarters.....							6
Field companies.....	(2)	2	2	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	6 $\frac{1}{2}$
Signal troops.....		1	1				2
Divisional signal companies.....		1	1				2
Wireless companies.....		1	1				2
Infantry:							
Infantry brigade, headquarters.....	2	4	3	1			10
Battalions.....	5	12	11	4	1		33
Army Service Corps:							
Companies (Light Horse brigades).....		1	1				2
Headquarters companies.....	1	2	2	1			6
Companies.....	1	4	3				8
Army Medical Corps:							
Light Horse field ambulances.....		1	1				2
Field ambulances.....	1	4	3	1			9

¹ Includes three permanent batteries.

² Two half companies.

APPENDIX F.—Physical training of boys and girls.

All boys of the ages of 12 and 13 years, who are medically fit, are liable to undergo junior cadet training, which embraces physical training (to be carried out on each school day for not less than 15 minutes), elementary marching drill, and the attainment of a certain standard of efficiency in not less than one of the following subjects: (a) Miniature rifle shooting, (b) swimming, (c) running in organized games, (d) first aid.

The training of junior cadets is carried out by the school-teachers, but boys not in attendance at schools are trained by the military staff. The latter are very few, as most of the States now provide for compulsory attendance at school up to the age of 14. The training is inspected annually, and an allowance of 2s. 6d. per effective junior cadet is made to head teachers of schools to defray cost of providing equipment, etc.

Fifteen instructors have been appointed by the Defense Department for the instruction of teachers. These instructors conduct courses of instruction for teachers, and issue certificates as "Instructors of junior cadet training" to those who qualify. In addition, they visit the schools periodically for instructional purposes. The expenses of teachers attending schools of instruction are defrayed by the Defense Department.

Although the Defense Department is only responsible for the instruction of those teachers who train junior cadets, the education departments of the several States, being desirous of extending the scheme of physical training to their schoolgirls, unanimously asked for a course of instruction to be arranged for their women teachers. A special course of instruction was held accordingly during three weeks in 1913, at which 22 women teachers from the several States attended. In addition to physical training, attention was given to anatomy and first aid, and special medical lecturers were employed in connection with these subjects. Certificates of competency were awarded to 20 of the teachers in attendance. Several of these teachers have since been employed by the State departments as "specialists" solely for the instruction of women teachers and schoolgirls in physical training.

APPENDIX G.—Approved allotment of members of rifle clubs on mobilization, 1913-14

Military district.	Number of rifle clubs.	Total strength of rifle clubs.	60 per cent of strength of clubs estimated fit for active service.	Total number allotted to Light Horse.	Total number allotted to Infantry.	Total allotted to A. S. C. and A. M. C.	Allotted to cable guards.	Total allotted to units and cable guards.	Percentage of column 4 allotted to units.	Balance of column 4 available for future allotment to units.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
First.....	216	9,098	5,459	610	3,105	142	67	3,924	71.8	1,535
Second.....	303	14,099	8,460	760	3,748	0	0	4,508	53.2	3,952
Third.....	325	15,321	9,193	922	5,280	1,274	0	7,476	81.3	1,717
Fourth.....	119	4,906	2,944	381	1,191	0	0	1,572	53.4	1,372
Fifth.....	124	2,371	1,422	166	997	0	25	1,188	83.5	234
Sixth.....	46	1,770	1,062	128	771	79	25	1,003	94.4	59
Total.....	1,133	47,565	28,540	2,967	15,092	1,495	117	19,671	68.9	8,869

APPENDIX H.—Administrative and instructional staff for militia units and territorial areas.

Military unit or area.	Proposed by Lord Kitchener.		Present establishment.		Ultimate strength on present lines.		Ultimate strength under proposals in Section IV.	
	Officers.	Other ranks.	Officers.	Other ranks.	Officers.	Other ranks.	Officers.	Other ranks.
Light Horse brigades.....			6	6	8	8	8	8
Infantry brigades and brigade areas.....	22		24	35	24	44	24	24
Light Horse regiments.....			13	69	28	90	28	190
Field Artillery.....			5	24	14	50	14	250
Garrison Artillery.....				11		11		11
Engineers.....				19		21		21
Infantry battalions.....			20	178	88	352	88	88
Army Service Corps.....				12		22		22
Army Medical Corps.....				15		22		22
Battalion areas.....							488	
Training areas.....	215		218	266	127	300		500
Spare, for special courses attached to other armies or sick.....	12		12		12	12	12	12
Total.....	249	400	680 218	635	6301	932	262	848
Estimated expenditure at current rates.....	(10)		£188,000		£283,000		11 £253,400	

¹ 26 regiments at 3 each and 12 divisional squadrons at 1 each.² 14 Field Artillery brigades at 3 each and 8 batteries at 1 each.³ 14 field companies at 1 each and 7 for 8 signal troops and 7 divisional signal companies.⁴ For a long time to come these will be temporary appointments.⁵ Temporary.⁶ Permanent.⁷ Averages 8 for country battalion areas and 4 for city battalion areas.⁸ Includes 3 attached to other armies.⁹ Lord Kitchener's proposals gave a total of 400, but did not show allocation of duties.¹⁰ No estimate framed by Lord Kitchener. Expenditure at current rates would amount to £160,000.¹¹ Includes an allowance of £50 per annum for clerical assistance in each area office.

Estimated—Officers average £320; noncommissioned officers average £200.

ALLOCATION TO AREAS.

	Country.	City.
First district.....	7	5
Second district.....	8	24
Third district.....	7	22
Fourth district.....	6	3
Fifth district.....	3	3
Sixth district.....	2	2
Total.....	33	59

NOTE.—Country, $33 \times 8 = 264$; city, $59 \times 4 = 236$. Total, 500.

APPENDIX I.—Table showing approximately how the duties of the Quartermaster General's Department might conveniently be distributed.¹

DEPARTMENT OF THE QUARTERMASTER GENERAL.

COMPTROLLER GENERAL OF MILITARY ADMINISTRATION.

QUARTERMASTER GENERAL.

QUARTERMASTER GENERAL.				
COMPTROLLER GENERAL OF MILITARY ADMINISTRATION.				
DEPARTMENT OF THE QUARTERMASTER GENERAL.				
Central section.	Supply section.	Transport and remount section.	Equipment and ordnance section.	Barracks and works section.
Administration of the personnel of the Quartermaster General's Department.	Supply of food and forage in peace and war.	Supply and organization of transport of all kinds, including railways.	Supply of armament, arms, ammunition, clothing, equipment, and stores of all kind except medical stores.	Erection, maintenance, and upkeep of barracks, drill grounds, ranges, and maneuver areas, in conjunction with the department of home affairs.
Compilation of estimates for Parliament.	Preparation of estimates and administration of votes connected with above.	Traveling claims.	Stores.	Lodging allowances and bills.
Accounting.		Postal services.	Armors and armorers' shops.	Preparation of estimates and administration of votes connected with above.
Examination of accounts.		Purchase of remounts, and control of remount depots.	Preparation of estimates and administration of votes connected with above.	
Pay duties.		Preparation of estimates and administration of votes connected with above.		
Provision of the financial and clerical personnel required by other departments and sections.				

¹ This table is mainly illustrative. The Comptroller General should have a perfectly free hand to organize his department as he thinks best. I trust that the responsibility of the various sections in the department will be definitely fixed by allocating to them in writing certain votes or parts of votes.

APPENDIX J.—*Showing proposed redistribution of duties between the departments at headquarters.*

[Printed and published for the Government of the Commonwealth of Australia by Albert J. Mullett, Government Printer for the State of Victoria.]

Secretary of defense (also permanent head of the Defense Department).	Chief of the General Staff.	Adjutant General.	Quartermaster General.
Add to present duties: Subject to minister's instructions, reviewing expenditure of the Defense Department. Administration of the following votes— Division 40/1, such personnel as remains under the public service act; divisions 47, 48, 49, 50, 51, 80/1; and preparation of estimates in connection therewith.	Add to present duties: Recruit training. Training of senior cadets. Musketry. Questions of policy relating to armament and fixed defenses. Military training and instruction of all arms and services. In conjunction with Quartermaster General, administration of the following vote— Division 74/1 (1), and preparation of estimates in connection therewith.	Add to present duties: Administration of Artillery and Engineers. In conjunction with Quartermaster General's administration of the following votes— Division 40/1, all personnel under defense act; divisions 41/1, 41A/1, 42/1, 43/1, 67/1, 68/1, 69/1, 70, 71/1, 72/1; and preparation of estimates in connection therewith. Regulations for universal training. Deduct from present duties: Recruit training. Training of senior cadets. Musketry. Appointments, promotions, postings, etc., of Quartermaster General's personnel.	Add to present duties: Duties of the Chief of Ordnance and of the finance member not allotted elsewhere. Administrative instruction. In conjunction with Adjutant General, framing rules and regulations affecting terms of service, promotions, retirements, etc., of Quartermaster General's personnel. Appointments, promotions, postings, etc., of Quartermaster General's personnel. Administration of the following votes— Divisions 40/5, 6, 7, 41/2, 41A/2, 42/2, 43/2, 45, 46, 52, 67/2, 3, 68/2, 3, 72/2, 73/1, 74/1 (2), 75, 76, 77, 78, 79, 80/2; and preparation of estimates in connection therewith. Deduct from present duties: Regulations for universal training.

Division 44 will be administered as at present by the commandant, Royal Military College, Duntroon.
NOTE.—The divisions quoted above are those contained in estimates 1913-14.

THE SWISS SYSTEM OF NATIONAL DEFENSE.

THE SWISS SYSTEM OF NATIONAL DEFENSE.

INTRODUCTORY NOTE.

In view of the increased interest of the American people in the subject of national defense and the many inquiries in regard to the military systems of various countries, it seems appropriate at this time to furnish a description of the system by which Switzerland has solved the problem of national defense.

The notes herewith are compiled from the following reports on file at the Army War College.

Report of Lieut. Col. George Bell, jr., November, 1911.

Report of Capt. T. B. Mott, Field Artillery, 1905.

Report of Capt. S. J. Bayard Schindel, General Staff United States Army, 1907.

Report of Lieut. Col. William Cary Sanger, National Guard of New York, 1900.

NOTES SHOWING THE MAIN FEATURES OF THE SWISS MILITARY SYSTEM.

[From report of Lieut. Col. George Bell, jr., November, 1911.]

Switzerland, with a population (3,315,443) smaller than that of Massachusetts, and with an area less than twice that of the same State, can mobilize 240,000 trained and properly equipped soldiers inside of 24 hours. Behind this force is a reserve of about the same size, part of whom are armed and have received training, and may be used to fill casualties, for the defense of positions and for special duties of various kinds.

In many respects the Swiss Republic resembles our own, as their Cantons correspond to our States, and the greater portion of the Army belongs to the different Cantons and not to the Federal Government, whose troops are but a very small fraction of the whole, although the Confederation has, with the consent of cantonal authority, charge of all recruiting for military service.

Every Swiss citizen owes military service from the commencement of the year in which he attains the age of 20 to the end of that in which he reaches 48, and must present himself during his twentieth year at a designated place in his location for physical and mental examination. The place and time for this examination are published in the local newspapers and posted on bulletin boards. It is considered a misfortune to be rejected, but the examination is thorough and only about 50 per cent are accepted. The mental examination to test the instruction given in school requires a knowledge of reading, writing, arithmetic, and the history and geography of Switzerland, and if not sufficient the recruit must attend evening school in his town until he reports for duty.

After the examination, if successful, the man is given a soldier's register, in which is stated the result of the examination, and he is allowed to return home. Later on notice is sent to him to report at the training place to which he has been assigned. There is one of these places for each division of Infantry, and also separate training grounds for the Artillery, Cavalry, and Engineers. In 1910 there were 19,494 recruits accepted.

The men for the different arms are selected largely because of their occupation. Thus Engineers are assigned to the Engineer Corps, telegraphers to the telegraph companies, young country farmers to the cavalry, the mountain guides and climbers to the Mountain Artillery, and so on, every advantage being taken of a man's trade or profession to improve the Army and also to lessen the amount of special training required.

All men accepted are insured by the Government against sickness or accident contracted while in service, and men not accepted are taxed because of their exemption until after they have reached 40 years of age, this tax being in addition to all other taxes.

The elite, or active army, is composed of all men between 20 and 32 (except in the Cavalry, where it is 30) years of age, who have been able to pass the required mental and physical examinations and are accepted. After 32 (in the Cavalry, 30) the soldier passes to the landwehr; and after 40, until 48, he belongs to the landsturm, as do all other soldiers who have become incapacitated for service in the elite and landwehr, but are still able to serve in the landsturm, and also all volunteers possessing sufficient knowledge to shoot and the necessary physical fitness.

TRAINING OF RECRUITS.

When a recruit reports at his training place or school he is fitted out with a uniform and equipment, complete in every particular for field service, and given a rifle. These articles he takes home with him after his training is over and keeps them until the end of his military service. When he is turned out for any purpose he has to present himself fully equipped, and if anything is missing he can be fined or imprisoned. The purpose of the schools for recruits is not only the training of recruits to become soldiers, but also to educate the cadres. The length of time for the school for recruits is fixed as follows:

	Days.
Infantry.....	65
Cavalry.....	90
Artillery.....	75
Foot Artillery (fortification troops).....	75
Engineers.....	65
Sanitary troops (Hospital Service).....	60
Commissariat.....	60
Train.....	60

Where special training takes place in separate courses, recruits have to serve only 40 days of the schools above mentioned. For example, soldiers of the Hospital Service have to follow a special course in the hospital, but the 40 days of the recruit school must be served first.

Each recruit school is under the charge of a field officer who belongs to the corps of permanent military instructors, of whom there are about 215, and who are professional soldiers most carefully selected. He is assisted in the charge of this school by a number of assistant instructors and also by a suitable number of commissioned and noncommissioned officers from the Army.

Each day at least eight hours' hard work is required, except on Sundays, and even then they are frequently sent out for night work in the evening. There is a great deal of night work, night firing, constructing trenches, etc., but it does not interfere with that required each day, for, although the recruits may be out until 3 o'clock in the morning, the work next day proceeds as usual.

The men are taught to keep their kits and arms in shape, are given instruction in hygiene, in the regulations and in the theory of shooting, besides having all kinds of outdoor exercises.

After completion of his course at the school the recruit is allowed to return to his home and then becomes a regular member of the organization to which he is assigned.

Universal education is compulsory in Switzerland to the age of 15, and in all schools a certain amount of gymnastic training is always given to improve the physique, and as a preparation for the military service, and recently more care has been given to it than formerly, and an attempt to get more uniformity has been made.

The interest shown in rifle shooting by all has been the means of educating almost all the Swiss youth in the handling and use of arms. So, except for the collective firing, night firing, and firing at unknown distances, time has been gained in recruit training by it not being necessary to devote a great deal of time to gymnastic training and individual firing. Money is saved and the period for training shortened whenever possible; thus, to save ammunition and get the greatest benefit from the fire every sergeant of infantry carries a field glass, and children carry their schoolbooks and other packs on their backs, so it is not necessary to accustom the recruit to carry his knapsack.

PERMANENT INSTRUCTORS.

The uniformity and efficiency of the instruction and training in the entire Army is due to the work of the permanent instructors, who practically spend their entire time out of doors with the various classes or units undergoing instruction; aiding, advising, correcting, and noting. They may be, and are, assigned to command of a unit, viz, battalion, regiment, brigade, division, or army corps, but not more than one-fourth of the entire number may be upon this duty at one time. They also act as umpires at maneuvers.

REPETITION COURSES.

In the élite a repetition course of 14 days is held every year for the "Artillery" and fortification troops (Foot Artillery), and of 11 days for all the other arms. Privates, privates of the first class, and corporals have, however, to serve only 7 (in the Cavalry 8) repetition courses in the élite. Higher noncommissioned officers, beginning with the grade of sergeant, have to serve 10 repetition courses in the élite.

These repetition courses must take place alternately in the small and large corps units.

In the landwehr a repetition course of 11 days takes place every 4 years for all the different arms. Privates and corporals have to serve only one repetition course in the landwehr. Landwehr soldiers who are detailed to the élite must serve their repetition course with the élite.

The Federal Assembly has the authority to order special courses, to take place in case of a new organization of a part (unit) of the Army or when new arms (rifles or heavy guns) are adopted, and for parts of the landsturm (second and land reserve) for from one to three days for special purposes.

SHOOTING OBLIGATIONS AND VOLUNTARY ACTIVITY.

All noncommissioned officers, corporals, and privates (soldiers) of the élite and landwehr provided with the long rifle or short carbine are obliged to do the shooting practice yearly, such as officially prescribed, in one of the existing voluntary shooting societies. Those who neglect to comply with the said prescription have to attend a special course for target practice without pay.

The shooting exercises in the voluntary (private) shooting societies receive the support of the Confederation, provided that such practice is taking place in conformity with military prescriptions. The Confederation provides for special training of shooting masters (controlling private instructors of voluntary societies).

The Confederation also supports all voluntary activity in connection with military education (drill, training, etc.) according to the merit of such activity, and provided that it be duly organized and placed under the control of the Confederation. (There exist military societies, the central society of noncommissioned officers, etc., for the purpose of training while in civil life; which societies are supported by the Government.)

TRAINING OF NONCOMMISSIONED OFFICERS.

Schools for noncommissioned officers of 20 days are prescribed for Infantry, Hospital, Commissariat, and Train Troops, and of 35 days for Cavalry, Artillery, Engineers, and Foot Artillery (fortification troops). The proposal or selection of the men to attend these schools is made in recruit schools by the officers of the troop and the instructors (permanent officers) in repetition courses by the officers of the units of the troops.

Newly appointed corporals, with exception of those who are selected to pass a school for officers, have to serve in a recruit school.

TRAINING AND EDUCATION OF OFFICERS.

The training for officers takes place in schools for officers of a time of 80 days for Infantry, Cavalry, and Foot Artillery (fortification troops); 105 days for Artillery and Engineers (in two parts); 60 days for Train Troops; and 45 days for Hospital (sanitary service), Commissariat, and Veterinarians.

Noncommissioned officers will be selected as aspirants to become officers in recruit schools and noncommissioned officers' schools by the officers of the troops and the instructors, in repetition courses by the commanders of the units. In the hospital (sanitary service) as well as in the veterinary service, aspirants for officers are selected by the Surgeon General of the Army and the chief commander of the veterinary service, respectively. The last-named aspirants (doctors, veterinarians, and apothecaries) must have passed a Federal professional examination.

The newly appointed lieutenants have to serve in a recruit school, doctors and veterinarians in one of the other arms. Officers selected for quartermaster (paymaster) must attend a school of 20 days, and after their appointment they have to serve in one-half of a recruit school. Officers, who in a recruit school or in a repetition course, have proved their fitness for a higher rank must attend a central school as follows:

Central school I, of 30 days, the subaltern officers of the Infantry, Cavalry, Artillery, Engineers, and Foot Artillery (fortification troops) for the appointment of captain.

First lieutenants of Infantry, Cavalry, Engineers, Foot Artillery, Artillery, Commissariat and Train Troops, who are selected for promotion must serve in the position of commander of a unit in a school for recruits.

A central school II, of 50 days (which may take place in two parts), for captains who are selected for a higher rank.

For captains of the hospital (sanitary service), veterinarians, commissariat, and train troops the central school II can be substituted by a special school.

For the education of officers the Federal Assembly may prescribe special school for target practice and technical and tactical schools; for the purpose of education officers may also be called in to serve in schools or courses of other arms.

PROMOTION.

Promotion from second lieutenant to first lieutenant and from first lieutenant to captain is by seniority, but certificates of capacity are necessary. First lieutenants who do not show capacity pass to the landwehr. Captains usually serve about six years before promotion to major, which comes only upon recommendation of superiors, and if not promoted captains serve in the élite until they reach 38 years of age, and in the landwehr until they reach 44 years of age.

Superior officers serve in the élite and in the landwehr until they reach 48. In the landsturm all officers serve until after they are 52. With their consent, however, officers may be kept in the service beyond the limits stated. Officers who are young enough to serve in the élite may be transferred to the landwehr or to the landsturm, or officers who are of an age to serve in the landwehr may be sent to the landsturm. A major must serve at least two years in that grade before promotion, and a lieutenant colonel, also, must serve at least two years as such.

Recommendations for promotion to include the grade of lieutenant colonel go through regular channels from the officer under whom the officer promoted will serve to the division commander; and if the

chief of the arm (a Regular officer) considers the promotion merited he issues the necessary certificate. For regimental and brigade commanders a board, composed of the Secretary of War, the chief of the arm concerned, and the division commander, send in two names from which the executive selects one. Division commanders are usually taken from brigade commanders in much the same manner.

OBSERVATIONS ON THE REVIEW.

✓ A military observer can not watch the marching past of more than 21,000 Swiss troops, of all arms, as we did on August 31, at Moret and at Gilley, without being impressed by the steadiness of a force, trained so quickly, which is intended primarily for business, and not for show, as this is practically their only ceremony. All Swiss training has but one object, namely, the defense of the fatherland. All work is in the field and on the target range; not in a drill hall, which is unknown except for riding, and not on a parade ground, which is only for fresh recruits, and even on this there is a course of obstacles of all kinds; walls, fences, logs, ditches, jumps, etc., which all new men must go over a couple of times each day.

The march past of all the troops was most creditable, and the horses, both Cavalry and Artillery, were remarkably good and well handled. All officers were well mounted, some exceptionally so.

MOBILIZATION OF A BATTALION.

✓ As an example of the mobilization of a battalion of the Swiss Army would state that on September 25th the Forty-first Battalion was ordered to mobilize in a certain square in Lucerne. In this square were several tables, and between 8 and 9 o'clock the men commenced to report, completely equipped. As soon as a man reported he took his place in the section to which he belonged, and then commenced a general inspection of the man and his entire equipment by the lieutenants in charge of these sections. The inspection was most thorough; every article being held up and examined, socks being pulled apart to see that they had no holes in them, trousers were examined to see that they were sound and in good condition, as were all other articles of clothing. Every soldier had a good pair of extra shoes besides the serviceable pair he wore. The meat can and canteen were thoroughly inspected and a short time was given to the men to clean rifles, each man, being provided with rags which he has brought with him for this purpose, at once cleaned his rifle, and then, the breechblock being removed and a mirror being put into the breech, each piece was thoroughly scrutinized, the breechblocks were examined, put in place, and tried in the gun several times to see that they worked properly.

✓ The dress coats in which the men reported were taken off, carefully tagged and marked, and blouses were brought over to the company from the storehouses in which they had been kept; all having been washed and thoroughly repaired since the last time they had been used. The dress coats were carefully folded and wrapped up in the cloths in which the blouses had been tied. Each man selected a blouse, which, after he had adjusted the belt, was thoroughly inspected by the section commander, and in case it did not fit the man was compelled to change with some other man, or to obtain another

blouse. At the end of the inspection the blouses looked very well, and after everything had been thoroughly inspected the surgeon, accompanied by the section commander, made a thorough inspection of the arms and hands of each man.

Three cooks had reported early, and by noon a good dinner, consisting of soup, sausage, and bread, was issued to the men. There was no loud talking, and no laughter or boisterous conduct of any kind, and there was no confusion. The entrenching tools, which the men did not keep, were issued to the men, and before noon every man had his complete equipment, in every way, and the major had given what instructions he desired to his captains; the captains giving them to the lieutenants, and the lieutenants to their subordinates.

At 8 o'clock in the morning there had been practically nothing in the square. Before 2 o'clock there was a complete body of trained soldiers, who had been organized; and the band, with a platoon, was sent down to escort the colors to the battalion, which were received very much in the same way as our own people do on such an occasion. After the colors were received, and the guard had taken its proper place, the band played the national anthem, and the entire battalion sang it. After this was over the battalion marched to the station with its wagon train and entrained, without any noise, confusion, or delay. Everything had been provided for, and arranged beforehand. I saw two other battalions entrain; there being a few points of difference, but no confusion.

SWISS ARMY.

To the unpracticed eye, accustomed only to see troops in parade and moving with the precision of the parade ground, the maneuvers of the Swiss Army may be misleading; but to the trained soldier, who can separate at a glance the essentials from the nonessentials, it is apparent that the soldier is a man who has received an excellent training in field work, and while he may be far from perfect in many things, mostly because of the shortness of time at his disposal, there is nothing essential that has been omitted in the instruction required of him, so when the time arrives that his services are needed, his country has reason to believe this training will be sufficient to enable him to defend her intelligently and to the best of his ability.

A professional soldier may, of course, find much to criticize about the niceties of military training; but there is a something about this army which impresses him with its potential power, and makes it more to be dreaded than some regular military establishments which show more skill and precision in exercises, but do not possess the endurance, education, and wonderful patriotism which would endure anything. One short campaign or good skirmish would correct the few faults or deficiencies observed, and would make the Swiss Army a magnificent fighting machine.

Any nation, however powerful, will pause before invading Switzerland, for, combined to this preparedness, there is a Spartan patriotism and valor, inherited from ancestors who had no fear of death, and a love of country unsurpassed by any known people, and this army, or nation in arms, before being killed or annihilated by sheer force of numbers, will inflict terrible losses, as, while the Swiss believes in peace, and desires it above all else, his good sense tells him this is best assured by preparedness at all times.

THE SWISS MILITARY ORGANIZATION.

[From report of Capt. T. B. Mott, Field Artillery, 1905.]

In three days' time the Swiss Republic can mobilize a first line of 200,000 perfectly equipped fighting men, most of whom are fair shots, and all of whom are accustomed to shooting the Army rifle. Behind this first line a reserve army of 300,000 men, part of whom have served their time in the active army and 50,000 of whom are always armed, can be formed in whole or in part as necessity demands. Switzerland has about $3\frac{1}{2}$ million inhabitants; the military establishment costs yearly about $5\frac{1}{2}$ million dollars.

How are these extraordinary results accomplished?

In order to answer this question, the present paper will begin with an outline of the military organization, give a rapid sketch of the military career of the average Swiss citizen and describe in some detail the Swiss shooting clubs and the Army target-practice system; finally the salient points of special interest to us will be touched upon, while the appendix will furnish detailed information and statistics on all these subjects.

The strength of the field army, immediately ready for war, is about 200,000 men. There are besides, 14,000 men assigned to the fortifications.

This force is divided into four army corps,¹ each one of which is organized as follows:

Infantry: 2 divisions 4 brigades; 8 regiments, 24 battalions; 1 mounted machine-gun company; 2 battalions of carbineers (picked troops); 1 brigade of Landwehr or first reserves.

Cavalry: 1 brigade; 2 regiments; 6 squadrons, forming corps Cavalry; $2\frac{1}{2}$ companies of guides, 1 company attached to each infantry division, one-half company to corps headquarters (this leaves 2 companies of guides for escort of Army headquarters).

Artillery: 3 regiments; 6 groups or battalions; 18 batteries, 72 guns; of which 1 regiment to each infantry division as divisional Artillery and 1 regiment as corps Artillery.

Engineers: 1 bridge train and 1 telegraph company as corps Engineers; 1 battalion Engineers divided between the 2 divisions.

Medical: 1 corps hospital; 2 division hospitals; 10 field hospitals.

Also 1 ammunition column, 6 companies; 1 subsistence detachment and 2 companies of Army Service Corps.

Strength: Officers, 1,123; men, 24,544; total, 25,667. Saddle horses, 1,755; draft horses, 3,106; carriages, 916.²

Every Swiss citizen between the ages of 17 and 50 years is liable to military service if required.

The elite or active army is composed of all men who pass the physical and mental examinations and are received as recruits. It is considered a misfortune to be rejected; about 50 per cent of the men examined are accepted. Men serve in the elite 12 years (Cavalry 10; when 33 years old they pass to the landwehr; when 45 to the land-sturm.) The last class also comprises for emergencies all men not otherwise enrolled between the ages of 17 and 50.

The troops consist of Infantry, Cavalry, Artillery, Engineers, sanitary and administration troops.

¹ The divisional organization has replaced the corps organization.

² These figures are slightly altered by the new Artillery organization.

A battalion of Infantry consists of 25 officers and 732 men, 672 muskets; two 2-horse ammunition carts and eight 2-horse baggage wagons.

A battery of Field Artillery consists of 5 or 6 officers, 138 men, 21 or 22 saddle horses, 106 draft horses (6 extra), 18 carriages in all; 4 guns, 10 caissons, battery wagon, forge, 2 supply wagons.

A company of Siege Artillery consists of 7 officers and 162 men.

A company of Engineers (sappers) consists of 4 officers and 185 men; (pontonniers) of 4 officers and 119 men; (railway pioneers) of 3 officers and 77 men.

A corps hospital consists of 35 officers, 221 men, 148 horses: a division hospital, 23 officers, 124 men, and 40 horses; a field hospital, for 200 sick, 7 officers and 30 men.

The administrative troops of an army corps consist of 33 officers, 361 men, 47 saddle horses, 96 wagons, 372 draft horses.

There is also a battalion of bicycle troops, unattached in time of peace.

The Federal Congress is the lawmaking body; the Federal Council elected by it is the executive authority. One of the members of this council is the head of what the Swiss call "the Military Department"; in other words, he is Secretary of War.

The Federal Council appoints the following officials from among officers of the Army: A Chief of Infantry; a Chief of Cavalry; a Chief of Artillery; a Chief of Engineers; a Chief of the General Staff; two chiefs of supply (1) of ordnance (2) of food, clothing wagons, etc.; a Chief Surgeon; a Chief Veterinary; a Chief Paymaster and Auditor; a Judge Advocate General; a director of powder manufacture (civil and military, State monopoly); a bureau of permanent fortifications; a director of the State horse establishment.

MILITARY AUTHORITIES OF EACH CANTON.

Each Canton, corresponding to our State, has a military department which has certain well-defined functions ascribed to it by, and subject to the control of, the central authority.

The cantonal military department assures the regional recruitment, appoints certain subaltern officers (of Infantry chiefly), issues the call to arms, assures the clothing and equipment of troops in its territory, furnishes horses and collects the military tax.

EDUCATION OF THE SOLDIER.

In Switzerland universal education to the age of 15 is compulsory, and during this period simple gymnastic exercises under the direction of the schoolmaster are required of all pupils as a preparation for military service. The schoolmasters are prepared for this instruction in normal schools.

But apart from this obligatory work there exist more or less everywhere what are called cadet corps, voluntary organizations composed of boys from 11 to 16 years, in which setting up and marching drills and some exercises in the manual of arms are given. Each corps adopts its own simple and inexpensive uniform, generally the same in each locality, and the State furnishes a light cadet musket and ammunition for target practice. The target practice generally

takes place on Sunday. Moreover, one or more Army officers serve as instructors for each corps, and the State gives a subvention to each of 5 francs per member whose shooting is reported upon favorably by the instructor. In 1904 there were—

Number of corps.....	50
Members cadet corps.....	6, 149
Members whose shooting favorably reported upon.....	3, 133
Total subvention by the State.....francs..	15, 665

PREPARATORY MILITARY INSTRUCTION.

Between the ages of 16 and 20 the Swiss boy may, if he chooses, become a member of a preparatory military organization, which operates on the same lines as the cadet corps, except that the Regular Army musket is furnished and the shooting is more serious. It is laid down as a principle that in these organizations the chief attention must be given to gymnastics and shooting. It is not desired to turn out half-instructed recruits, but vigorous and agile youths. The State gives no subvention, but furnishes arms and ammunition. The drills generally take place late in summer afternoons, the shooting on Sundays.

In 1904 there were—

Number of organizations.....	20
Number of members.....	6, 507

THE CALL TO MILITARY DUTY.

During his twentieth year, about midsummer, the young Swiss must present himself for military service. Notice is put in the newspapers and posted on the town bulletin boards directing the young men of such and such a commune, locality, or ward to present themselves, usually at the mayor's office, for physical examination. This examination is severe and only about one-half are accepted as fit for military service. In 1904, 15,969 recruits were accepted. There is at the same time a short but severe literary examination of each recruit on nonmilitary subjects as a test of the instruction given him in the schools. He must know the three R's fairly well and understand the history and geography of Switzerland. If his knowledge is not sufficient, he is made to attend evening school in his town till he reports for military duty.

The examination over, he is given his soldier's register, wherein is inscribed the first two acts of his military existence—his presenting himself and the result of the examination. He then goes home. The following spring or summer notice is sent out for men of such and such communes to report at the place d'armes, or training ground, of their district at such a date. There are eight of these training places; one for each Infantry division and located in the district from which the division is recruited. The Artillery, Cavalry, and Engineers have separate training grounds. Each training school comprises barracks, storehouses, rifle range, and training ground ample for a regiment of Infantry.

The recruit is fitted out with a uniform and equipment complete in every particular for field service and given a rifle. These articles he takes home with him when he returns and keeps them until the

end of his military service, at the age of 50. Whenever he is called out, whether for war or a period of instruction, he has to present himself fully equipped; if anything is lacking he can be fined or imprisoned.

RECRUIT SCHOOL.

The military instruction of the recruit now begins. One of the corps of permanent military instructors, always a field officer (there are 200 of these officers and they are strictly professional soldiers), has charge of the school, aided by a number of assistant instructors and also a detail of commissioned and noncommissioned officers of the Army. The recruits are divided into companies, sections, and squads and the instruction proceeds on lines similar to those obtaining at West Point when the fourth class is being broken in during camps.

Before the recruits arrive the detail of officers and noncommissioned officers who form the cadre of the battalion are given a week of instruction by the chief instructor and his assistants (professionals). The recruits arrive and their instruction proceeds as follows: School of the soldier, squad, and section about four and one-half weeks; school of the company, about one week; school of the battalion, about one week.

The day consists regularly of eight hours' hard work, Sunday excepted. Besides the outdoor exercises the men are taught to keep their kit and arms, to cook, and are given some notions of hygiene, of the regulations and of the theory of shooting.

TARGET PRACTICE.

Each recruit is allowed 90 blank and 200 ball cartridges. Of the latter 15 are fired in preliminary practice, 80 in individual practice, and 105 in field war practice.

As instruction gets on, company and battalion combat exercises are begun, longer marches are undertaken (up to 25 miles), and two nights passed in bivouac.

At the close of the instruction each recruit receives in his book a note expressing an appreciation of his conduct and zeal.

The commandant of the school gives his whole time to supervising the instruction, aiding, advising, and correcting, encouraging initiative in the instruction detail and inspecting the results of their work.

During this time the soldier is rationed, housed, etc., and receives 10 cents a day pay. At the end of his 47 days of recruit training he is sent home, later is assigned to a battalion, and has no further military duty till the following year or the year succeeding that, when he is called out for 16 days' training with his regiment ("cours de repetition" in the French text).

As before stated, there is one of these training schools or camps for each Infantry division. Three classes of recruits succeed each other at each camp during the summer. Each class consists of about 500 men. These are divided into companies of about 100 men each for instruction and discipline while at the school.

Thus, in 1904 there were 11,400 recruits received; there were 24 school periods and 95 companies of recruits. It may as well be

remarked here that each battalion (800 men) receives roughly 100 recruits each year and these men continue to serve in that battalion for 12 years, doing 16 days' field training every 2 years. At the age of 45 he passes to the second reserve or landstrum, where he has no military service except in case of war.

So much for the unambitious private. But suppose the recruit we are considering is above the average and wants to become a non-commissioned officer or an officer. At the close of his seven weeks of recruit training the instructor has noted him well as regards discipline and intelligence. This note is put in his soldier's register and his name is forwarded with others to the chief military officer of the Canton as being material for a noncommissioned officer.

SCHOOL FOR FORMING NONCOMMISSIONED OFFICERS.

In this case, next year, when the noncommissioned officers' schools are organized, our recruit receives an order to attend. He can not ask for this order, but when received he must obey it unless excused by proper authority for reasons given. About 100 recruits will assemble at the division training camp, with a "cadre" of regular instructors and 10 or 12 of last year's corporals and sergeants. During four weeks our recruit is put through every exercise that can teach him his duties or determine his value; he commands a squad, a section, a platoon; he drills the other men and in turn is drilled by them; he is given all sorts of field training and target practice.

At the end of the course, if the recruit has not utterly failed (very few are dropped, as careful selection is made in the first instance), he is made a corporal.

The corporals, sergeants, etc., who attended this same course, forming the school cadre, are generally men selected as the best, and they usually go home after the four weeks' work promoted one grade.

In 1904 there were 2,260 corporals graduated from these courses at the division training schools; only 50 aspirants failed.

Our recruit now becomes a corporal, can aspire to a commission at once, second lieutenants being appointed indifferently from all non-commissioned officers. However, neither he nor any other noncommissioned officer can go to the candidate-officers' school until he has spent seven weeks as corporal (or sergeant, etc.) at a recruit school and been favorably reported upon. Therefore we will suppose our corporal is ordered the following spring or the one succeeding to one of the recruit courses as a noncommissioned instructor or part of the cadre. His seven weeks have given him more experience and confidence; he does well, and goes home noted satisfactorily as to conduct and capacity. The permanent instructors at these recruit schools must pay special attention to this matter and make report through the chief instructor and the division commander to the cantonal military department as to these aspirant officers, and upon this report the man is left in the ranks or sent up to an officers' school. He may be recommended simply for sergeant. Sergeants are also made from corporals at the end of one of the training periods, or after maneuvers.

SCHOOLS FOR FORMING OFFICERS.

Next year or the year following (depending upon how much military service he has recently done) our corporal (or sergeant), having now gone through (a) a recruit course, 6 weeks; (b) a corporal's course, 4 weeks; and (c) a recruit course as a member of the cadre, 6 weeks, may be ordered (or he may ask to be sent) to the school for forming officers. This school is held at the division training grounds, usually in the autumn when the recruit schools are finished. The course is 6 weeks and is chiefly theoretical, consisting of lectures, recitations, and examinations. At the end of the course those who are recommended for it are made second lieutenants and go home. In 1904, 339 men attended these schools and of them 4 failed to get a commission. The military department this year again urged upon the Federal Assembly that the school course is too short to make officers out of noncommissioned officers.

With his commission the new second lieutenant receives his assignment to a company and a money indemnity sufficient to buy his officer's uniform and equipment, and he turns in his private's uniform and equipment. In principle all officers are furnished their uniforms and equipments at the cost of the State and it may be noted here that every Swiss officer carries an excellent Zeiss field glass.

Within a year after getting his commission the second lieutenant must go through a recruit course, doing his duty as lieutenant commanding a platoon of recruits; he must also attend the shooting school for officers at Wallenstadt. His expenses on this, as on all similar duty, are paid. This instruction may be postponed one or even two years by authority for urgent cause.

In 1904, 331 second lieutenants attended the shooting school in 8 series. Captains and field officers also attended to the number of 112.

The infantry officer now has the privilege of going to the school of riding at Thoune for two courses, each of 2 months, at least a year apart. Here horses are provided and an intensive instruction of 6 hours a day mounted takes place.

A second lieutenant is promoted after from 4 to 7 years by seniority, but he must present certificates of capacity from the instructor of his arm and his commanding officer. During his service as first lieutenant he must attend a central school—6 weeks' course—at one of the divisional training places. He is here prepared for his duty as captain and if he does not prove himself capable he is not promoted.

The course is chiefly theoretical, except for the lessons in equitation and staff rides. Tactics receives the most attention; lectures in law, administration, and hygiene are also given. The professional instructors constitute the teaching body and the work is very severe.

This work generally goes on in the winter; the barracks have plenty of furnished bedrooms and a good mess so that officers have to bring only their clothing.

The first lieutenant must also serve with his company during two regular training periods (16 days each). If he is a promising officer, he is called out for a recruit course, 8 weeks as a captain. This is considered as a candidate-captain's training. Having performed this duty satisfactorily and received the certificates of capacity required from the chief instructor and his division commander (these men have had him under their notice and marked him for about 4 years at the

central school, the training periods, and the candidate-captain's course), he is promoted to captain. This is generally at the end of 4 years as first lieutenant and the new captain is from 27 to 32 years old.

First lieutenants of inferior capacity are not promoted, but pass to the reserve at the end of their thirty-fourth year.

A captain serves about 6 years before being promoted to major. He may, of course, not be promoted at all, in which case he passes to the reserve (*landwehr*) at the close of his thirty-eighth year.

To be promoted to major a captain must have served a training period as such or a recruit course as company commander and have passed successfully his second course at the central school. If recommended by his superiors, he may then find himself a major when between 30 and 38 years old.

A major must serve at least 2 years as such before being promoted, must have done a training period as major, and gone through the course at the central school for field officers (third attendance).

Service of at least 2 years as lieutenant colonel is required before being promoted.

The right to recommend for promotion to include grade of lieutenant colonel belongs to the officer under whose orders the man if promoted will serve. These recommendations go through official channels and receive the opinion of each superior to the division commander. The chief instructor issues the certificate if he considers it merited.

The selections of commanders for brigades and regiments is made by a board which presents two names, one of which must be selected by the executive. The board is composed of (1) the Secretary of War, (2) the chief of the arm concerned, (3) the chief instructor of that arm, and (4) the commander of the division of which the regiment forms a part. The same principle presides in all arms and staff departments.

The board to nominate a corps or division commander is composed of the Secretary of War, the 4 corps commanders, the 4 chiefs of arms, and the chief of staff. The general officer must be appointed from the two recommended by this board.

Promotion usually takes place, of lieutenants, by squadron; of captains, by regiment; of field officers, by brigade.

In general, throughout the Army, a vacancy of brigadier would be filled from the colonels in the brigade; of divisionnaire, from the brigadiers in the division; of corps commander, from the divisions of the corps. This is a custom, but not a law.

It must be borne in mind also that no enlisted man can aspire to become an officer who is not a graduate of one of the numerous high schools or colleges. I believe most of the officers are graduates of the University and have taken there the military course.

The above chiefly concerns the Infantry, by far the most numerous and important arm in the Swiss service. The rules for training and for promotion are on the same general principle in the other arms, only in the Cavalry and Artillery the courses are much longer. In the Artillery the recruit course lasts 57 days instead of 47; to become a noncommissioned officer a further course of 5 weeks is necessary; to become an officer two more courses of 6 and 9 weeks. The Cavalry recruits' course lasts 82 days; to become a corporal 47 more days are demanded, and for sergeant 21 days additional. Besides, every noncommissioned officer must go through a cadre course of 6 weeks.

The Cavalry soldier serves after his recruit year 12 days every year for 10 years.

LANDWEHR SERVICE.

The Infantry landwehr is divided into two "bans." The first, composed of men from 33 to 39 years old, is organized into regiments and brigades and may be called upon to take its place in the first line with the élite, or men in their first 12 years' service. The second "ban," men from 40 to 44, form part of the second line, and furnishes troops for garrisoning fortresses, escorts for supply columns, etc.

When a man reaches 45 he passes into the landsturm, which does no military service except in war emergency. It is inspected once a year.

The landsturm is divided into the armed and unarmed. The former, about 50,000, is organized into regiments, etc., as a third line; the latter, about 240,000 men, is divided into numerous detachments having special duties in time of war; such, for example, as pioneers for making earthworks, butchers, bakers, etc.

All the Cavalry and Field Artillery belong to the active or élite army—men in their first-line 10 or 12 years' service. Cavalrymen pass to the reserve or landwehr after 10 years, but as their horses are by then 15 years old not much account is taken of this force except as concerns the men.

Artillerymen passing from field batteries into the landwehr man the ammunition train of Infantry and Artillery.

To illustrate the march of promotion or retirement from service and transfer from first to second or second to third lines of defense (1, élite; 2, landwehr; 3, landsturm), let us take the year 1904.

Transferred from active army to landwehr: All captains born in 1866; first and second lieutenants born in 1870; roughly speaking, all noncommissioned officers and soldiers born in 1872.

Transferred from landwehr to landsturm: All captains and lieutenants born in 1856; all field officers aged 48 who request it; all noncommissioned officers and men born in 1854.

Liberated from the landsturm, i. e., from military service: Officers born in 1849 except those who ask to stay; noncommissioned officers and men born in 1854.

The following round figures give the average assignment during the 10 years from 1895 to 1904 to the various arms. Total recruits per year, 17,100.

Infantry.....	13,000
Cavalry.....	570
Field Artillery.....	1,060
Mountain Artillery.....	100
Position Artillery.....	200
Train.....	500
Engineers.....	600
Fortress troops.....	400
Sanitary Corps.....	530
Army Service Corps.....	140

In 1914 the Army effectives were:

	Élite.	Landwehr.
Staff.....	1,923	353
Infantry.....	114,271	¹ 40,797 ² 23,454
Artillery.....	17,464	12,862
Cavalry.....	5,107	3,797
Engineers.....	5,763	4,483
Sanitary Corps.....	1,919	1,877
Administration troops.....	1,414	837
Bicycle troops.....		109
Total.....	147,861	88,569

¹ First ban.

² Second ban.

Total landsturm, 294,388.

THE CAVALRY SOLDIER.

The various "schools" or "courses" for the Cavalry go on in the different training stations all the year round. Each Cavalry soldier is called out every year for at least 12 days training and this during 10 years. Let us suppose a boy wants to become an officer, and as his time of service approaches his family consents to this ambition. To show the system, we will carry him through the various "courses."

In April, say, he is called for his first or recruit service; 90 days of very strenuous existence comparable only to that of a fourth class-man in camp at West Point, school of the soldier, foot and mounted, target practice, school of the squad and platoon, field exercises in the open country, school of the squadron (our troop) and a few long marches.

If our recruit is well "noted" he is later sent to a school of candidate corporals, 42 days of unremitting work. The aspirants act as instructors and drill each other in turn, whether for individual instruction or exercises of the squadron or platoon. A lieutenant supervises each squad or platoon. A lieutenant supervises each squad (see below) and a professional instructor the whole. Drill mounted and on foot, target practice and field maneuvers on a small scale.

Our candidate corporal, if well noted at the end of the 42 days, is made a corporal or assigned to a squadron. He must then do 12 days of the regular annual training as corporal in his own squadron.

Some time after this, his service being satisfactory, he is sent to a candidate-officers' course. Here he passes 60 days of theoretical and practical work under regular permanent instructors. After passing his examination the young lieutenant is sent at once for a "recruit course" where he puts in 90 days as instructor and supervisor to the candidate corporals as described above, besides being instructed himself by the higher officers in his duties as lieutenant. This course is almost entirely practical.

This over, the lieutenant is sent to one of the "officers' courses" (Ecole Centrale) at Thoune, where he passes 42 days chiefly in theoretical instruction under the best instructors in the Army.

This finishes his obligatory instruction and thereafter he has only his regular yearly training to do.

Before becoming a first lieutenant (say, in 6 to 8 years) he must put in 42 days again in a candidate corporal's course as instructor;

before becoming a captain he must attend a recruit course 90 days as captain instructor, a noncommissioned officers' course as instructor 42 days, and do two periods of regular training with his troop.

Promotion to first lieutenant is by strict seniority; after that by strict selection. The cantonal military authority appoints captains, the central authority all higher officers; but no officer can be promoted unless recommended by his immediate and next higher chiefs.

The rules for promotion cited above for the Infantry obtain, in general, for the other arms, and will not again be referred to.

In practice, young men who aspire to become officers generally put in all of the above courses in their first year, and by addition it will be seen that 336 days are passed in obligatory and most arduous training before one can become a second lieutenant. Sometimes the work is spread over 2 years, but both the candidates and the head instructors prefer to have the man put in 1 year of military service and get his commission.

In watching the various courses I was greatly struck by the intense interest and earnestness of purpose which marks the bearing not only of officers and candidate officers, but of candidate corporals and even recruits. There is a total absence of any spirit of shirking or trifling.

FORTRESS ARTILLERY.

There are only two "fortresses," St. Gothard and St. Maurice, each being really a region of passes with several distinct fortifications. To the first region are assigned two "divisions" of fortress Artillery, in all 8 companies, plus 2 machine-gun companies, each company having either 6 or 8 guns, and a sapper company.

To the St. Maurice forts are assigned 3 companies of Artillery and a company of machine guns (12 pieces) and a sapper company.

The armament of the fortress troops is mainly the machine gun and the carbine.

These organizations were created eight years ago to man the mountain defenses of St. Gothard and St. Maurice. The men come from the territory immediately around these places and all their military training is carried out in the immediate neighborhood of the forts. In winter the forts have small permanent detachments of caretakers.

The question naturally arises, why have the Swiss defended these two passes and left the whole of their frontier to the northeast and west open? A distinguished officer to whom I put this question answered with a smile that it was doubtless because the Italian frontier could be so readily and cheaply defended and it sounded well to make a start in creating frontier defenses. To pretend to fortify the French, German, or even the Austrian frontier would require an immense outlay.

It may, moreover, be remarked that most likely the Swiss chiefly fear a violation of their neutrality by the Germans. If the Triple Alliance were at war and such violation took place, the Swiss have made their backs safe from invasion via Italy, the French frontier under these circumstances would need no defense and the whole field army would be free to defend the German frontier and the small strip assailable from Austria.

THE GENERAL STAFF.

The General Staff is organized on the lines of the German general staff. It consists briefly of: Officers of the general staff; adjutant or assistants detailed from troop officers; officers of special arms or service; secretaries or clerks.

The Chief of the Army General Staff has under his orders an organization divided as follows: (1) Staff section; operations, correspondence, post and telegraph. (2) Section of roads and railways, forwarding of supplies. (3) Adjutant General's Department, reports, police, headquarter troops, guard, and police. (4) Chief of Artillery. (5) Chief of Engineers. (6) Surgeon General. (7) Chief Veterinary. (8) Judge Advocate General. (9) Chief Commissary—pay, clothing, equipment, lodging.

Corps and division staffs are organized on the same lines.

There is a General Staff school for forming officers who desire to enter that service.

The first course is for lieutenants and captains, lasts 70 days, and includes a staff ride.

The second is for captains and majors who have formerly pursued the first course successfully, and lasts 42 days, and includes a staff ride.

General Staff officers are called out six at a time to each territorial subdivision headquarters to do the work of those headquarters.

THE CORPS OF INSTRUCTORS.

The permanent personnel of the Swiss Army consists of 200 officers known as "instructors" of the first, second, and third classes. They are generally selected when young and advanced in rank till the highest grade is reached about the age of 40. They may or may not be assigned to command of a unit—regiment, brigade, army corps, etc. Not more than one-fourth, however, may be so assigned. This is done to prevent the professional officers from getting all the higher commands, to the discouragement of the nonprofessional or militia officers proper. The instructor, therefore, does not take the place of the commander of a unit but is his adviser.

A lieutenant having passed with credit through all the courses for his grade (as recruit, as candidate-corporal, as corporal in a recruit course, as sergeant in, say, division maneuvers, as candidate officer, shooting school of Wallenstadt as officer, recruit school as officer, one or two regular training courses of his regiment), may make application for the post of instructor, meaning thereby to embrace the army as his sole and permanent profession.

By this time he is well known to his superiors, and if they, especially his immediate instructors, commend him, he is appointed a candidate-instructor and is assigned to the arm he asks for and given station at a training camp. (An officer seeking the post of instructor must almost always be a university graduate and especially must have taken the military course at the Ecole Polytechnique of Zurich; he must be of good, respectable family—generally he has some little income of his own.) Here he works under the head instructor in the various courses, teaching recruits, noncommissioned officers, forming officers, etc. He spends practically the

whole of his time all the year round out of doors with the various classes undergoing instruction, aiding, advising, correcting, and noting.

Upon the excellence of his work depends his promotion, which is strictly by selection on the recommendation of his superiors. Some instructors never get beyond third or second class.

Instructors are assigned from time to time to command regiments, divisions, etc., for their own instruction, but their chief work is at the various "schools" where they form the cadres of the Army. During the autumn maneuvers they have no part, unless as umpires. They meet once a year and make recommendations to the chiefs of each arm, to whom they are responsible. They thus keep the instruction throughout the Army uniform.

Whenever these officers reach an age when they are no longer active enough to be useful they are simply put out; no pension or pay whatever is given them.

Promotion, as explained before, above the grade of second lieutenant is strictly by selection in the Swiss Army, and the result of this system is seen in the youthfulness of the higher grades—lieutenant colonels of 35, brigade and division commanders of 45, chiefs of arm under 50, etc. I have seen but one Swiss officer who seemed what we would call "an old man."

The law absolutely restricts this selection to those officers recommended by their superiors. The political power appoints, but may not appoint anyone unless recommended by his chiefs. The cantonal political authorities appoint up to major in the Infantry and captain in the Cavalry; the central authorities to all higher grades.

I am told there is the play of influence inevitable in republics as well as monarchies, but it is never flagrant, and if some good men are passed over, a bad one is rarely chosen, and never twice.

PAY, PENSIONS, AND INSURANCE.

During periods of training officers and men are paid what is considered sufficient to cover expenses. It is not payment for services—properly speaking, but reimbursement of expenses only.

The following is the pay table:

	Active service.	Instruction service.
Major general.....	\$6.00	\$3.40
Brigadier general.....	5.00	3.40
Colonel.....	4.00	3.40
Major.....	2.40	2.00
Captain.....	2.00	1.60
Second lieutenant.....	1.40	1.00
Sergeant, mounted.....	.40	.40
Sergeant, foot.....	.30	.30
Private.....	.16	.16
Recruit.....	.10	.10

Every officer as well as every soldier receives a ration. An officer is allowed on instruction service 80 cents a day for foraging his horse. Horses are, in principle, furnished mounted officers in kind or by indemnity. Officers receive quarters in camp or garrison and traveling expenses on duty.

The ration is $1\frac{1}{2}$ pounds bread, two-thirds pound meat, and one-half pound vegetables.

There is an invalid pension law on familiar lines which grants pensions to families of deceased or invalided soldiers varying from \$130 to \$20 a year.

Besides this the State insures every soldier against accidents during his peace training. This was formerly done by contract with insurance companies; the State now runs its own insurance office.

Unlike most countries, Switzerland taxes the present to pay for future wars. For half a century she has been accumulating a fund to pay the pensions resulting from any future war. This sum now amounts to \$3,700,000.

USE OF PRIVATE LANDS FOR FIELD TRAINING.

In Switzerland, as in nearly every other country except the United States, the law permits the Army during any of its work to maneuver over the fields of any citizen, all damages being paid for. This authority is used with great discretion and the damages are small. All field work is much more usefully done across country than on a government reserve, and except for target practice and some cavalry and field artillery exercises the Swiss do not even desire a drill ground; their marching is done on the roads, their drill across the fields. Even for combat firing exercises of battalions and regiments a rough country is selected; the roads blocked, notices posted, danger flags hoisted, and the firing begins.

England has a similar law, the text of which was sent with my report on the English maneuvers for 1903. The English and the Swiss are probably more jealous of individual and property rights than are any people in the world, but they have cheerfully acceded to the inexorable necessities of modern military training.

MILITARY TAX.

Every Swiss citizen, at home or abroad, between the ages of 20 and 44, who is not enrolled in the active or reserve armies, is obliged to pay a military tax. Between the ages of 32 and 44 the tax is one-half.

Therefore all men (about 50 per cent) who are not accepted as recruits and all who for any reason whatever are excused from military service pay the tax. The tax is of three kinds: (1) Military poll tax of 6 francs; (2) military property tax of 0.15 per cent of assessed value of property (property under \$200 not taxed); (3) military income tax of 1.5 per cent on income.

The total military tax paid by any one person can not exceed \$600.

The assessments are rigorously made and every penny exacted.

This tax is in addition to other taxes.

COST OF A SWISS SOLDIER.

Leaving out cost of rearmament, the budget of the Confederation for 1901 was 28,713,600 francs. The budgets of the separate States of the Confederation or Cantons can not be given exactly. An expert estimates it at from 3 to 5 millions per annum for all Cantons, say, 5,000,000 francs. Total for support of Army, 33,713,600 francs.

Assuming the expenditure to be roughly 35,000,000 francs, or \$7,000,000, the cost of each soldier of the 200,000 in the first line (which can be instantly mobilized) amounts to \$35 a year. The second line costs nothing.

The annual appropriations for our Army show that each regular American soldier costs 28 times as much as his Swiss comrade.

To compare the availability of the two forces for war is not so easy as to compare the cost, though our force of Regulars and Organized Militia taken together has about the strength of the Swiss active or élite army.

Switzerland can mobilize an army corps in three days, ready in every particular of organization, equipment, munitions, and transport, to march against the enemy; they can mobilize four such corps at one and the same time. Just how many days it would require to concentrate in one place 30,000 of our Regulars with all their baggage and transport, or how long to assemble four such commands of Regulars and militia, it is difficult to say, but probably it would be nearer three weeks than three days.

Comparisons may be odious, but when to maintain 1,000 men costs 28 times as much in one country as in another the relative readiness for war of the two forces is worth examining.

GENERAL REMARKS ON THE ARMY.

It is impossible to spend several weeks, as I have done, in daily contact with detachments of the Swiss Army engaged in their ordinary daily routine without receiving a lasting impression of the willingness and devotion of the men and the zeal and capacity of the officers. The term "militia army" has given the world a mistaken idea of the effectiveness and readiness of this force, which I think can not be judged by the militia standards of either America or England. "Semipermanent army" would be a more correct term in view of the severe exactions of service, the length of time devoted to field training, and the military education of the officers.

The progress of training of the Swiss Militia is exactly the reverse in theory and fact of that in operation with our militia. Good performance in the field being the whole end and object of military instruction and the time being short, the Swiss begin, and we may say end, their teaching in the open country.

After a thorough course in the school of the soldier and squad, work out in the open fields is begun and the recruit comes face to face with the primitive problems of a campaign and learns at the very start "what he is there for." He is taught to march correctly in column, form line and march in line, but these exercises are made an incident of going to and coming from "work." The real business of his life, he learns, is to march steadily under a heavy pack, shoot straight, take cover, and obey his squad leader. The candidate-officers' and junior officers' chief thought is to do outpost and patrol duty effectively, to read the map correctly, to post their men advantageously, and to solve on the ground minor tactical problems. They are questioned and noted on these points and they realize that their advancement depends upon the intelligence they show in the presence of actual though elementary military facts.

After three weeks thus spent the recruit puts in a week at battalion exercises with longer marches and two nights in bivouac with outpost duty at night, followed by exercises all the forenoon and a march home in the evening. The fifth and sixth weeks entire are spent on a long march in rough country, where the battalion acts for the most part as if in the presence of an enemy, maneuvering by day, establishing outposts at night, and conducting combat exercises with ball cartridge (90 per man).

The contrast between this sort of militia training and that seen in America or England is most marked. The psychological effect on the men is certainly important. The first conceptions of the real business of a soldier, his whole reason for existence, are apt to produce a lasting impression on a young man. In our service the recruit's first enthusiasms are concentrated (and dissipated) in the grind of barrack-yard drill, where no man need or is expected to use his head. As these same recruits, whether fourth-class cadets or regular enlisted men, grow old in the service and in turn have to instruct others, the ideas crystallized in them during their first training prevail, and instinctively they give importance to the things which have been most deeply impressed upon them—judge of regiments by close-order performances and seek to have their own excel in a similar way, while work in the open, amongst farmhouses, villages, fields and woods, seems a thing quite apart, an occasional occurrence in no way intimately bound up in a soldier's routine existence.

In Switzerland there are no parades or reviews or drills beyond the company or battalion. These things would doubtless be done in some measure if there existed a permanent army, but they would always come last and be least thought of, because through the push of stern necessity the Swiss has sifted out the absolute essentials to fitness for war, and these essentials, field exercises and good shooting, he works at to the exclusion of everything else.

To show the way the Swiss map out a day's work I will give a short account of 24 hours I spent with a class of recruits and a cadre school. The morning exercises went on as usual. At 2 p. m. the senior Cavalry instructor (commanding a brigade) assembled the 20 or 30 lieutenants who were present as assistants in a course for candidate corporals. The same was done for the Infantry (a recruit course was on). The candidates made up the troopers of two squadrons, the young officers commanding. In the lecture room of the barracks the theme was given out and the assignments made, the brigadièr explaining first in German and then in French what it was proposed to do and gave his ideas. The officers took notes with maps in front of them. Two assistant instructors, captains, were present. They then mounted and took their squadrons some 6 miles out and posted them, covering a debarkation in rear and feeling for an enemy expected from the north. This constituted the left of the line. The right was made up of the battalion of infantry recruits (they had been under instruction three weeks). The enemy was composed of four bicycle companies ordered from another garrison to move toward Berne.

About 6 p. m. I rode out with the brigade commander who inspected the posts. I was greatly struck with his painstaking way of questioning not only each chief of post but most of the privates. What will you do in such and such a case? Where is the next post? Who

commands it? Where does this road lead to? Where is the captain to be found? Most of the replies were intelligent and showed that during the afternoon the young officers had gone over the case with every man. Each soldier had a good map. We got supper at 9 o'clock and had a little sleep. At 2.30 a. m. we started out to make the rounds. In front of each post the sentries, well hidden, were on the alert, and upon being ordered to fire a shot the post came out at once. At daybreak the squadrons were united and then patrols sent on the various roads to look for the enemy, push him back, and see what was behind. By 7 o'clock the maneuver was over.

The young officers were then united and the chief instructor criticized, in a lucid and interesting talk, the little operation, the mistakes each man had made, what was done right, etc., etc. The cavalry then rode home and after lunch went to work as though they had spent the night in bed. The infantry (recruits) marched directly to the skirmish range and had skirmish firing till noon, then marched to barracks 4 miles for a few hours' rest before resuming afternoon drills.

Now these recruits had been out since 2 p. m. the day before, had supped on a cake of compressed soup and a piece of bread (I examined their rations); they were on outpost all night and had precious little sleep; by 4 a. m. they were out maneuvering after breakfast composed of a piece of bread and a glass of milk (we all had the same); the maneuver over at 8, they put in 4 hours marching and target practice; then in the late afternoon more drills. This schedule is, I believe, typical. I am much on my guard against programs prepared for foreign inspection; but after seeing a great deal of this Swiss training I can only say it is the most intense, the most fiercely practical work I have ever seen. The instructors do not spare themselves and for them it is a continuous affair. One of the assistant instructors told me very seriously that except for a month's leave he could honestly say he had during the entire year just time enough each day to read the newspapers.

The officers only get hold of these men for 6 or 8 weeks at a stretch, but they work them unceasingly all of that time. There is so much to learn, there is so much that is new every day, and over new ground, that the interest really does not flag. There is plenty of mental and physical fatigue, but there is no ennui.

As another example of this intensive instruction, take the riding school at Thoune for Infantry officers, etc. There are 600 horses at this school and each one of these student officers puts in 6 hours a day on horseback. They actually ride a new horse every hour, 6 a day for 2 months. Of course no man can be made a good rider in 2 months, not if he slept on a horse; but the horses are good, the instructors are good, and the spirit prompting the effort is magnificent.

The day out with the Cavalry gave me a chance to notice how the capital mounts I had seen being trained at the depot looked after a few years in the service, rather out of it. All the horses are branded with the year of sale to his rider, and I noticed many of three, five, and six years' service. Not one was in the least over in the knees; all were in perfect condition of flesh and muscle; some had gotten a little heavy; not a sore-back mark in the lot, and they galloped pretty well. I could not judge of their mouths, but none of them bothered at the bit and the good blood in them showed decidedly. Two of

the instructors were mounted on perfect types of hunters, and both these men would be considered crack horsemen in any country. One had gone through the Italian Cavalry School and had hunted much in Rome; the other had had two years at Saumur and, though a man of 50 and brigadier, had won four years ago the international long-distance ride—200 miles in 37 hours. He still uses the horse.

These things are here set down because I imagine that the words "Swiss Cavalry" do not generally convey to foreigners much idea of horsemanship or horses, but with such types of men having ample authority and devoting their whole time to instruction and 900 blooded 4-year-olds poured into the Cavalry every season, I think it will be seen that these eight small regiments are far from being militia Cavalry in the usual sense.

I now venture to set down what seem to me the most useful points offered for our contemplation in the Swiss system of military education:

1. Concentration of effort, mental and physical, upon a given line of work during short periods, everything else being for the time dropped. Four, five, or six hours a day are devoted to one kind of instruction, then something else taken up; four, six, or eight weeks of intense application to one class of subjects, then a rest or a change. Attention and effort is concentrated upon one thing at a time.

2. Proving fitness before gaining promotion. Every man from private to general must serve a probationary period in the grade to which he aspires before being appointed to that grade. Instruction in the duties of the higher grade is given by most competent instructors and the man is actually tested in the practical performance of his new duties for 6 or 8 weeks before he is promoted.

3. A system of promotion by selection and of retirement from active to reserve service insuring a body of regimental brigade and division commanders for the most part between 40 and 50 years old. The men having high responsibilities are in the prime of their physical and intellectual forces.

4. Recruiting officers from the ranks. Promotion to second lieutenant from the ranks takes place only after 12 months of arduous work in the practical performance of a second lieutenant's military duties. As the candidate officers command each other in turn under severe and capable instructors, the best men are readily picked out. Mental examination is practically eliminated, a certificate from a good school being sufficient proof of general education. The whole effort is bent to seeing if the candidate has the military qualities that make a good officer.

5. The habit of having a criticism after every exercise. By this means all officers profit by every exercise in which perhaps only one was actively responsible, each is liable to question, each is made to think, and every problem is mentally solved by all present. It forms habits of mental decision and it enables the instructor to know at the end of a season which officers are capable and which merely superficial. Since the instructed as well as the teachers are called upon to make the criticism, it brings about habits of clear reasoning and clear expression or it proves after a time that both are lacking.

6. Ground chosen for exercises. The Swiss have ample "parade grounds," but they almost never use them for anything but squad drill and gymnastics; ample riding halls, but they ride out of doors

and across fields much of the time. The problems of war, however small, must be solved on the theater where marching and fighting takes place; that is, over the everyday country made up of fields, roads, villages, paths, farms, woods, and streams.

A man can not be taught billiards on a dining table, nor football in a gymnasium, nor hunting in a riding hall. He also can not be taught minor tactics on a military reservation, however large, and the Swiss do not attempt such impossible feats.

The Swiss farmer is the most independent and jealous person on the globe, but he has voluntarily yielded to supreme military necessity and voted to let troops maneuver over his fields; and he greatly enjoys getting a few francs for a little damage done to his fence or pasture.

SWISS SHOOTING CLUBS AND MUSKETRY PRACTICE.

The origin of the present Swiss shooting clubs and of target shooting as a national sport is unquestionably to be found in the early law, which, long before the birth of the modern conception of the "nation in arms," decreed that every Swiss citizen must be ready to defend his country and, as an effective corollary to this law, provided that he should be given by the State a suitable musket and ammunition for learning its use. Even before this enactment a similar idea in the law which prohibited any citizen from taking to himself a wife until he furnished proof that he owned a musket and could use it. This law only disappeared some 50 years ago.

The actual prevalence of target shooting as a pastime in country and town, the frequent and enormously attended shooting matches all over the Confederation, the existing laws for the encouragement of shooting, and many of the military customs and regulations are the outgrowth of these old habits and enactments.

Upon the reorganization of her military system in 1874, creating a national instead of a cantonal or State militia, Switzerland wisely took advantage of these old customs, and while proclaiming anew that every citizen must be trained as a soldier, added that his arms, uniform, and equipment furnished by the State must be kept by him in his own home. Thus was confirmed if not created the means whereby the poorest peasant could practically own a modern \$20 rifle, receive some free ammunition, and get more on easy terms.

The enthusiasms and peculiarities of youth were moreover remembered, and cadet corps ranging in age from 11 to 16 and preparatory military corps ranging in age from 16 to 20 were encouraged by law. The little boys are supplied with a safe and serviceable light gun and the big ones with the regulation musket; Army officers teach them to drill and shoot and public ranges are given them to practice on.

Any man who remembers how he felt at the idea of owning and shooting a rifle when he was between 14 and 18 years of age has little difficulty in appreciating the sound military policy which dictates this encouragement of youthful spirit in the direction of shooting by furnishing arms and ammunition, instructors, and ranges to boys at the age when their tastes are being formed and when to possess a rifle is an unspeakable joy. The influence is felt outside the active members of the boys' corps, which are by the nature of things mostly confined to towns and to boys whose parents are a little easy, and there can be

small doubt that the example of these proud youngsters goes far to shape the ambition and form the taste of those who for one reason or another are not members of a corps.

We all know the effect produced upon a town or a school by the possession of a champion baseball or football team; every boy wants to play ball. Shooting clubs in Switzerland take the place of our baseball teams.

In 1904 there were nearly 13,000 boys between 11 and 20 years belonging to these corps; omitting about 3,000 of the youngest all were reported as fair shots. Reckoning according to population, if this system existed in the United States there would be nearly 300,000 boys instructed in drill and shooting, over 200,000 of whom would be fair shots with the army rifle.

That target shooting is the great national sport in Switzerland is attested by the eternal crack of the rifle which assails one's ears in every part of that country, no less than by the evidence of statistics.

In 1904 there were 3,656 shooting clubs under Federal control or encouragement, with a membership of 218,815. In 1902 the membership was 213,667; in 1898, 210,524; in 1894, 133,486. Thus the clubs are not only fully alive but are increasing in strength. The total population of Switzerland is only about $3\frac{1}{2}$ millions. If shooting clubs existed in similar proportion in the United States the membership would attain nearly 5 millions.

A shooting club is formed voluntarily, adopts such statutes as it chooses, has its matches as it likes, and in general is a perfectly free and voluntary organization just as such a club would be in America. The influence of the Government is felt in three ways:

First. Each commune in Switzerland (there are 3,241 communes with a population varying from 50 to 115,000 each) is obliged by Federal law to maintain at public expense a safe and suitable target range of not less than 300 meters; on this range all legally organized shooting clubs of the commune have a right to shoot. Thus the club is at no expense for its range.

Second. The Federal Government offers a substantial subsidy (maximum of 4 francs per member) to each club whose members have done certain prescribed shooting in the year.

Third. Any soldier who, during the year he is not called out for service, presents his target book proving that he has done the prescribed military target practice for the year with a club of which he is a member is excused from summons to a military range that year. Thus most soldiers, if merely for their own interest, join clubs; for if they do not they are required to present themselves during the years they are not called out at the division target range and do three days' target practice. During these three days they are housed and fed, but receive no pay and no indemnity for time lost.

This ruling applies to company officers and to all noncommissioned officers and privates armed with the musket. The State pays for cartridges used by soldiers shooting their prescribed scores, but for no others.

THE LAW FOR ENCOURAGEMENT OF SHOOTING.

Any shooting club, having not less than 10 members, which complies with the conditions set forth in the law, may claim the State subsidy. The subsidy is paid the club, not the individual, and is determined in

amount by executive decision each year when the year's firing program is announced; it shall not exceed 4 francs for each marksman. In 1904 the allotment was 1.50 francs (30 cents) for each marksman who qualified.

Only the Army rifle and ammunition are recognized.

Those clubs which, besides executing the official shooting program, conduct well performed tactical exercises and combat firing may be accorded a special subsidy by the military department.

The military authorities of each Canton appoint shooting committees of from three to seven members to supervise the arrangements and the firing of the various clubs in the Canton. The president at least must be an officer of the élite (active) army.

These committees examine the by-laws of each club and recommend the acceptance or rejection of the club as a candidate for subsidy. (For examples of these by-laws, see Appendices 1 and 2.) They see that the program is carried out and are present at some of the practice. They examine and forward with recommendation the reports of the club as to the practice held. They report upon the condition of the ranges, etc. The expenses of the committees are paid by the State.

In each divisional district the military department appoints a field officer as inspector of target practice who places himself in communication with the various committees in his district, assists if he chooses at the shooting, and makes an annual report with recommendations to the War Department.

Soldiers of the élite (i. e., in their first 12 years' service) must, if they join a club, be active members on exactly the same footing as the others. Each club sends its report of target practice to the cantonal committee by the 1st of October which forwards it visé d to the Chief of Infantry at Berne.

Annual orders prescribe the number of shots, ranges and all other conditions to be fulfilled before a man qualifies. Each soldier of the active and landwehr forces who has no military service to perform in that year presents his target book, certified to by his club committee, to the officer commanding his section. The latter sends it to division headquarters. The entry is verified and the book returned to the owner. If he has fulfilled the conditions, he is not called on to go to a military range and do three days' shooting.

The range in each commune must be good up to 300 meters; if a commune has no 400 and 500 meter range it may unite with adjoining communes to construct one, but this range must not be over $4\frac{1}{2}$ miles from the center of each commune interested.

The target material, payment of markers, etc., is at the charge of the club.

OFFICIAL PROGRAM OF FIRING FOR THE CLUBS.

Each year the military department gets out its program for the season's shooting. It varies but little from year to year. For 1905 the main provisions are as follows (see Appendix 4):

Obligatory program, i. e., the series of shots which must be designated not less than three days for this firing unless all the members can easily shoot the series in less time. The position and handling of the rifle must conform to the drill regulations. Only the Army musket and ammunition are allowed.

1. Each man must fire 5 shots kneeling at target A (in Appendix 12) at 300 meters and make 4 hits counting a total of 9 points. If he does not make this in the first 5 shots, he continues to fire up to but not more than 8 shots. To qualify, the 4 hits and 9 points must be obtained in any 5 consecutive shots.

2. Five consecutive shots prone at target A at 400 meters, making 3 hits and 7 points with same conditions as above.

3. Five consecutive shots standing at target A at 300 meters making 3 hits and 6 points.

4. Five consecutive shots prone at bust silhouette marked with circles at 300 meters making 4 hits and 8 points.

Every member who has fired 8 shots in each of the 4 series above without qualifying, is considered nevertheless to have performed his obligatory shooting for the year. He is marked on the target book as "carried over" for the series he failed in.

For every member of the club who has performed his obligatory shooting, whether he qualifies or not, the State pays the club (for 1905) 1.50 francs (30 cents).

Elective program.—This may be shot by each club or by several united.

1. Five shots kneeling at target B at 300 meters. (Appendix 12.)

2. Five shots standing at target B at 300 meters.

3. Magazine fire during 1 minute, kneeling, at target B at 300 meters; 10 rounds at most (the magazine holds 10 rounds).

Taking part in the elective program does not excuse from the obligatory performance; a man is not considered to have done his duty unless he has fired an obligatory program in the year.

For each member who has shot the series above given, the club receives 1.50 francs.

Pistol practice.—In this the Federal subsidy is 3 francs per man, thus high in order to encourage the practice which is not as prevalent as rifle shooting. The only persons whose shooting entitle their society to the subsidy are: (a) officers; (b) noncommissioned officers not armed with the musket but armed with the revolver and who own one; (c) privates who are equipped by the State with a revolver.

The marksman must be a member of a shooting club, take part in two days' practice at least and fire at least 60 shots at from 30 to 60 meters.

Clubs which, besides the fixed shooting program, execute combat exercises at unknown distances in a satisfactory way, get a special subvention according to the work they do and the funds available. Committees are ordered to aid the clubs in getting up these exercises and in carrying them on. A member of the cantonal committee must be present at and report upon these exercises.

In all exercises the clubs have to furnish the markers. These men are really professionals, provided with regular references, who go from range to range in summer. They are very expert.

The Federal law makes it a felony to announce or mark a false score. It is almost impossible to cheat on the large ranges, as I have been convinced. Cheating is rarely attempted, and the man caught trying it is dishonored for life.

Each soldier must use his own Army rifle, or in any case that of his organization. A member of the committee must make an inspection of arms before and after each exercise. Clubs must provide target

material of good quality and conforming to army regulations. The war department does not furnish targets; it does furnish samples of them. Inspectors of target practice furnish, when requested, plans of normal target ranges. Military members of clubs are insured against accident during their shooting practice by the Federal law. The report of practice on which the claim of subsidy is based must be accompanied by the register of members and the original score cards duly countersigned.

In 1904 the number of clubs which sent in reports claiming the State subvention was 3,656. Total membership of these clubs, 218,815. Federal subsidies were paid them as follows:

	Francs.
In the prescribed target practice 142,704 members qualified, at 1.50 francs each.....	214, 056
In the elective practice 71,758 members qualified, at 1.50 francs each.....	107, 637
In the revolver practice 786 members qualified, at 3 francs each.....	2, 358
In the combat exercises, squad or section at unknown distances, 49 clubs with 2,606 members qualified; these were allotted a total of.....	5, 170
Total State subsidy, 1904.....	329, 221

In 1904 the Swiss Army shot nearly 6,000,000 musket ball cartridges; the shooting clubs shot over 21,000,000 ball cartridges for the Army musket. Statistics as to the consumption of cartridges for other makes of rifle are not at hand, but it would appear to be certainly as great.

The clubs are self-supporting; the Canton gives them nothing, the commune furnishes the range. The expenses are very small. Some few of the largest clubs rent a room to transact regular business in, but none of them have more and most of them have their meetings in a café and have no "home" except the range. The entrance fee is generally 2 or 3 francs, say, 50 cents, and the annual dues about 15 cents.

About one-half the clubs of each Canton are grouped into a cantonal association of shooting clubs; there is also a national association combining these cantonal associations into a central society. Some clubs belong to no association.

The cantonal associations are organized for the purpose of strengthening the clubs in the Canton, encouraging shooting, organizing cantonal shooting matches, and seeing that the Canton is well represented in the intercantonal and Federal matches. While speaking of these matches, I beg attention to what seems the most characteristic feature of all Swiss shooting matches. All matches, whether among members of a club, between clubs, or between Cantons, are arranged so as to induce the greatest amount of shooting among the greatest number of individuals. In this respect the Swiss custom differs greatly from our own, and from the military point of view would seem superior. In our clubs the main interest seems to center in the selection and training of "the team" and the match is one in which only a few picked men do all the shooting. The rest of the men are mere spectators. In all Swiss matches as many men as possible shoot. At the Fribourg cantonal match the other day I saw 68 targets, all going up and down just as fast as 98 professional markers could work them. During the four hours I hung about the firing point I never saw an idle target. This stream of shooters went in and out all day, from early morning until sundown, and for nine days in

succession. On July 23, a rainy day, 50,700 rounds were fired at these 68 targets; the day I was there the estimate was 60,000 rounds, but the official figures were not published when I left.

This most useful result is obtained by the conditions of the various matches and the way the prizes are offered. This can best be understood by concrete illustrations. Take the match at Fribourg this week. The total prize money offered was 180,000 francs, divided into 18 categories. Take the first, the "Fribourg-Progres" prize. This prize in all amounted to 33,500 francs. The entrance fee was 15 francs for 5 consecutive shots. First prize, for the best 5 consecutive shots, 300 francs; for the best 3 consecutive shots, second prize, 275 francs; last prize, 5 francs. It was especially provided that 60 per cent of the competitors would receive prizes.

Take the "Singine-Vitesse" cup, total value of prizes 8,000 francs; the winner got 150 francs; 60 per cent of the men entering received prizes between 150 and 5 francs. In one of this year's district matches (a district is part of a Canton), selecting at random, we find the following: Total money value of one competition, 1,000 francs; this divided into 50 prizes, first prize, 120 francs; tenth, 20 francs; twentieth, 10 francs; and so on. These cases are absolutely typical and there is no exception to the principle they illustrate, that is the effort made to induce a great many men to shoot rather than the development of a few crack shots.

Exactly the same principle is followed in matches between teams representing clubs or representing Cantons. For example, in the match between clubs belonging to the association of Fribourg it was a condition that the team representing each club should be in proportion to its membership. A club of 15 to 20 members must send a team of 10; 40 to 50 members, 10 or 13; 100 members 17. It was provided that each team participating should get some sort of prize. The best individual scores were rewarded by wreaths of laurel, wreaths of oak, silver medals, and honorable mentions. These wreaths are very tastefully gotten up with ribbons bearing inscriptions, and the winners wear them home on their hats with visible pride.

This match was for the musket at 300 meters. The target was divided into circles each counting so much. The total score made by a team was divided by the number making up the team to get the figure of merit.

The national society.—The cantonal associations all belong to the national society, which performs an important function in representing the shooting clubs in all dealings with the Government, projects for legislation, changes of laws, etc. It organizes the national match every three years and the field practice competition between clubs in the intermediate years. Its annual report and by-laws contain a fund of valuable information concerning the shooting of the various cantons and clubs. In 1903, 1,675 clubs with a membership of 81,757 belonged to the national society, or, roughly, one-half of the clubs in Switzerland belonged.

The national society insures all its members against accident during any matches in which one of its clubs participates, and this without extra charge. The annual dues are 5 cents per member. The receipts and expenditures average about 30,000 francs a year. The society publishes a paper called the "Gazette des Carabiniers Suisses," and every club is required to subscribe for it. The society administers

"The Swiss Marksmen's Museum" at Berne, an interesting and handsome collection of weapons, books, souvenirs, installed on one whole floor of the Berne Historical Museum.

The national match, or Tir Federal, comes off every three years, each year in a different Canton. The last match was in 1904. This Tir Federal has nothing characteristic about it except its size, the huge attendance and the big prizes (that is the large total sums) offered. I am told that what I saw at Fribourg is just about what one would see at a Tir Federal, and the Geneva papers state that the first day's shooting in this match was heavier than at the last national match.

The comparison between a sectional match, a cantonal match, and a Federal match is the same as we see between a county horse show, a State show, and the national show.

I shall therefore give a short description of the small clubs and matches and proceed in greater detail with the Fribourg cantonal match which I saw. The principle is the same in all of them, the difference one of size.

Each commune must maintain a range, but as the communes vary in population from 50 to 100,000 the ranges vary also. Some ranges consist merely of a few sliding targets in a suitably arranged pit with a natural stop butt and a shed at the firing point. Other communes maintain several elaborate ranges, one of, say, 50 targets and 300 meters, another less elaborate for 500 meters, and sometimes, also, a skirmish range for the combat exercises. The last is, however, unusual.

Berne has a very good range, though it is only 300 meters. There are 50 targets for rifle and 8 for revolver. A very high, thick earth embankment surrounds the range on three sides; the fourth side is closed by a well-arranged brick building comprising a restaurant, café, rooms for the various committees, storeroom for cartridges, armorer's rooms, etc.

Much of the material at Fribourg was already sold for another match in another Canton. Sometimes the lumber, etc., is hired. All the target material at Fribourg was hired from Vaucher & Bieler, Fleurier, Neuchatel. This firm does a big business in hiring out large installations for matches as well as in selling to permanent ranges.

The by-laws of all clubs, even the smallest, prescribe that at the close of the shooting season, usually the end of September, a club match will be held. The money, etc., offered as prizes vary with the membership, but every member is expected and generally does contribute from 5 francs up. This sum, along with what can be squeezed out of merchants, liquor and cigar dealers, etc., forms the "contributed fund." Then each man pays an entrance fee for each event competed for varying with its importance.

Suppose there are five events:

No. 1. Total prize money, 10 per cent of the contributed fund plus 50 per cent of the entrance fees for that event. First prize, 1 per cent and a laurel wreath; second, 8 per cent; third, 6 per cent, etc.; 60 per cent of competitors receive prizes.

No. 2. Total prize money, 30 per cent of the fund plus two-thirds entrance fees. First prize, 2 per cent and a laurel wreath; 50 per cent of the competitors receive prizes.

No. 3. Total prize money, 5 per cent of the fund, etc.

The remainder of the contributed fund and entrance fees, say 20 per cent, goes to running expenses, paying markers, scores, target material, etc. Each man brings his cartridges, but these are sold by the State below cost. I am assured that the Swiss Government loses nearly \$200,000 a year by selling its cartridges below the cost of manufacture.

The larger matches are conducted on exactly the same principles. For a cantonal match there will be 60 or 70 targets; for a national match 150 to 200. As the distance (for all but pistol practice) is almost invariably 300 meters for all club matches, the targets are arranged in one row in one pit and the firing is from one long stand.

A match proceeds as follows: A man comes to the stand and buys a target book and admission card (30 cents). All the rules of the match are printed in this book. He wants to enter for any match being shot that day. He buys stamps (specially made) to the amount of the entrance fee for that match (from 1 to 20 francs), which the stamp man affixes in the book at the place indicated. He then goes to the armorer, who examines his gun to see that it is regulation in every particular, attaching a lead seal as a sign "passed." He then goes to one of the stalls marked with the name of the target and match he has entered for and puts his gun in the rack. This entitles him to shoot in the order of place thus indicated. When the target is free, he hands his book to the scorer (an employee, one for each target), who sees that it is correctly stamped, inscribes the number of the target and the arm used. The scorer rings an electric bell, which sounds at the corresponding target in the pit, and the man begins his shooting. As the value and place of the hits are signaled, 5, 4, 2, etc., the marker records on his "feuille de controle," or pit record, the same numbers he signals. The scorer calls out each shot and records it in the man's book.

This recording is always done by means of indelible rubber stamps, of which a well-arranged little box is in each stall. When the number of shots allowed has been fired, the marksman signs the leaf, as does the scorer, and presents the book to a secretary for record. If the particular match is finished that day, he knows at its close whether he has a prize and of what value. Some of the prizes are for the best shots on a target divided into 100 circles; each bull's-eye is paid, say, 100 francs; for 90 points, 20 francs, etc.; this prize can be had at once, after the record from the pit is received.

The pit record is kept with great care and serves to verify the scorer's book, as both records bear the number of the target and the hour and minute of shooting. Markers and scorers are shifted about irregularly, and cheating in a big match is well-nigh impossible.

The popular side of the Fribourg match inevitably suggested a big American camp meeting or temperance reunion. Large tents and sheds were erected for eating and drinking, special trains and omnibuses ran to the grounds, people were out in holiday dress, and there were speeches and processions.

In the Tir Federal, or national match, the financial part of the match is guaranteed by the Central Government. There is always a risk that the receipts will not equal the expenditures, and as a matter of fact in 1904 this was the case, and the Federal Government made good a deficit of 100,000 francs.

In the local matches the contributions are generally liberal. This year 50,000 francs were collected from the people of Fribourg for the match. The Canton of Fribourg guaranteed this match. In communal or district matches the communes interested guarantee the fund.

In all these matches an outsider has to pay a small premium to shoot in a match of which his club is not one of the organizers.

Advantages and disadvantages of matches.—The advantages are quite evident in that nearly the whole population interests itself in shooting and can shoot. Soldiers, keeping for 12 years their rifles at home, can take part in matches with no expense except entrance fees and cartridges, and they actually do a good deal of shooting.

The objections are few. Among them are the practical restriction of all matches to one range, viz, 300 meters, and to one position, the kneeling; the evil attendant upon all such assemblages of the people, drinking and carousing and the spending of money during sometimes a whole week.

The stands for club matches are all covered, so that the marksman is never in the rain or sun. This is made necessary by the desire to have all matches come off as advertised and especially in order that Sunday, the great day for shooting, may not be lost. The conditions are therefore not those for military shooting, either as to range or light.

TARGETS (CLUB MATCHES).

In each match the targets and conditions are decided upon by the committee and every detail published in the program of the match. This gives the size of the bull's-eye and of the other circles and the value of each in points.

There are three classes of targets generally recognized and used, and while the system of counting points may vary, the principle is the same: (1) The "Bonne" target, which is a meter in diameter divided into 100 circles valued from 100 to 1; (2) the "Tournante" target, which greatly resembles our Army A target in disposition and value of points; (3) the "Vitesse" target, which consists of 10 circles value from 10 to 1 points, and used for rapid fire, 10 shots in a series.

A sample of each of these targets is appended, with a description of the marking system written on the face.

Certain allowances are always made to marksmen using the Army rifle, as against those using the more accurate sporting rifle.

It may be said here that the Swiss army rifle is an unusually accurate piece, especially at 300 to 500 meters—more accurate than military requirements demand. The reason for seeking this refinement, as one of the Army rifle experts explained to me, lies in the desire to encourage the whole population to use the Army rifle as against sporting rifles. Even as it is, the latter have several advantages for accurate work at 300 to 400 meters and one sees marksmen arrive on the range with two or three rifles.

The sporting rifle, however, is mostly confined to the Swiss Martini. This arm is generally referred to in matches as the "carbine." This must be borne in mind in examining the conditions of matches as laid down in appendices.

The Cavalry carbine is never used except in Cavalry instruction.

It appears that about an average of 20 per cent of the Swiss Army are classed as "bon tireurs." The allowance of ammunition in the Swiss Army is about one-half what it is in ours; the men are under instruction only a few weeks of the year, and their target practice can not be conducted with the deliberation we are permitted. They shoot 200 shots as recruits in the midst of most intense and laborious instruction, at a time when most of them are physically and mentally tired. These conditions, as well as the dissimilarity of the ranges, targets, and positions, make a comparison most difficult. I venture, however, an opinion reinforced by that of a Swiss officer of great distinction and capacity in shooting matters. It seems likely that an American soldier classed as marksman would have little difficulty in qualifying for the Swiss "bon tireur"; many a "bon tireur" would not qualify with us as marksman. An American sharpshooter should invariably qualify as "bon tireur," but a Swiss "bon tireur" would often find it difficult to qualify as sharpshooter.

However, the crack shots of Switzerland—those who, singly or in teams, seem to carry off all the prizes in Europe—come from the shooting clubs and not from the Army.

(Artillery target practice is described under the heading "Field Artillery.")

THE SHOOTING SCHOOL AT WALLENSTADT.

Wallenstadt is the Infantry school of target practice. During eight months of the year there is a succession of courses in Infantry target practice all designed for the instruction of the officer in the conduct of fire in battle. The enlisted men sent to the school are merely the implements used in this instruction of officers. The teaching of the troops is solely incidental. About 200 men are sent from time to time to serve this purpose.

As explained in the subject of education of the officer, each second lieutenant within a year after getting his commission must attend a course at Wallenstadt. The course of 28 days is generally divided as follows: Subtracting 4 Sundays and 1 day for inspection, etc., there remain 23 working days; work for officers alone, 88 hours—11 days; work for officers with troops, 96 hours 12 days; total working hours, 184.

Of these, 58 hours are devoted to theoretical instruction and 126 hours to practical work.

The theoretical part comprises study of the arm and the theory of fire, tactics of fire, target practice reports and return of ammunition. The practical part is devoted to individual practice with rifle and pistol and combat practice, where the officers constitute firing platoons (56 hours); and to combat exercises where the officers command detachments of troops (70 hours).

Each class consists of about 40 lieutenants. Captains and field officers are also ordered up to repeat (the last) part of the course. Many apply to come. There are frequently 10 or 12 captains and from 3 to 5 field officers in each class. The captains attend only the last 12 days of the course. The practical work is the same for all; the captains and field officers receive an advanced theoretical instruction in fire tactics. Some Cavalry officers ask to take the course.

All the permanent instructors of all arms go through the course from time to time. For lieutenants, Wallenstadt is a school; for higher officers it is a source of information.

Each officer is allowed 60 rounds of revolver and 340 rounds of rifle ammunition; each man 250 rounds of rifle ammunition.

The place and the ranges.—Wallenstadt is at the extremity of Wallen Lake (south of the Lake of Constance) in a narrow valley inclosed on each side by precipitous mountains. There are two skirmish ranges, one using the lake as a stop butt, the other using the mountain. Each is nearly 2,000 yards long. For the combat exercises, the fields and hilly grazing lands on each side of the lake are used, the projections of the mountain side serving as stop butts.

The targets.—The regulation targets are of course used as prescribed. This especially applies to the individual practice of officers and the preliminary training of the men, who naturally arrive at Wallenstadt out of practice. The individual practice against regulation targets has no particular interest here as it has already been described. With the platoon firing the real instruction of the company officer begins. Before describing this and the combat firing I will give an idea of the targets used in the work. All targets of whatever description used in combat exercises, fall on being hit.

Stationary falling targets.—Head, bust and standing; all of thin pine board. Fall on being hit. These are arranged as skirmishers, sections, or columns.

Moving disappearing targets.—A long framework of iron is mounted on metal runners so adjusted as not to be stopped by any ordinary inequalities of the ground or even by ditches. A wire rope leads to the power station passing over suitable pulleys. When the rope is slack, the targets lie horizontally, practically along the ground; when the rope is drawn taut and the sled begins to move forward, the iron bar in which the targets are inserted revolves 90° and the targets appear. The targets on the sled can be arranged so that when the sled is stationary, the targets are seen as men lying; when the sled advances the targets seen are men standing. The effect is startling, to see the crouching men suddenly stand up and advance.

Falling disappearing targets.—Scattered irregularly along the depressions of the ground and hidden sometimes in shallow trenches are the disappearing targets common to all Swiss Army ranges. The principle is that of a simple crank arm revolving a long bar whose sockets bear the targets. By means of a winch and wire rope actuating the crank arms of the bar the latter is made to revolve 90°, raising the whole row of targets vertical or dropping them horizontal and out of sight. Each separate target falls on being hit.

There are a dozen of these rows of disappearing targets on the range, and all the winches actuating them are located in a little bullet-proof shelter in telephonic communication with the officer conducting the exercises.

A man is at each winch, and one or any number of the rows of targets may be made to rise or fall at will.

Balloon targets.—These are either head or bust targets, and consist of cotton stuff treated with rubber so as to be air-tight. When inflated, a narrow wooden strip serves as a base, and they are dropped on the ground anywhere.

These targets have two advantages: For combat exercises on the march they are so light a company can carry along a great number of them without wagons; they also when hit follow in a startling manner the actions of a wounded enemy. Instead of dropping flat and out of sight when struck (as with the usual falling target), the balloon target begins to slowly collapse and finally sinks. This renders the observation of fire and the estimation of the distance more difficult and more in accordance with what happens in battle, hence they think very highly of these targets at Wallenstadt for the training of officers in combat exercises on the march.

With the falling target the officer estimates the range, fires a few shots, changes the sights, fires another series, and sees several targets fall. He knows at once that he has the range and can proceed with rapid fire to crush the enemy. With the balloon targets he is presented with a more difficult problem, for when hit the targets do not at once disappear, any more than a wounded man disappears immediately from the firing line.

The markers.—These men at Wallenstadt are all civilian employees, paid about \$1 a day, boarding and lodging themselves. They are exceedingly skillful from long practice, and know almost without being told, what to do. In the combat exercises they precede the troops into the hills, place the targets where they were shown or told to place them, and no thought need be given to their safety, as they are well used to taking care of themselves. They keep in order and repair all the material, working at this the days when there is little or no shooting. The officers speak in the highest terms of the usefulness of these professional markers and target men.

I will now describe the shooting which I saw, touching only upon what seems most useful to us. The officers are first given the individual practice set down on page 198 of Maj. Cecil's report. For this he is allowed 135 rounds. For revolver practice he is given 60 rounds. The officers are then formed into a platoon and practiced in collective and combat fire just as will be described further on for the men. In this work 115 rounds are fired by each officer.

This work being over and the enlisted men having arrived, these are broken in by a series of drills and firings (40 cartridges only per man), and then the real instruction of the young officers in fire direction and fire tactics begins.

It must be remembered that the 200 enlisted men I saw shooting were not in any sense selected; they were simply a batch of soldiers called in for a period of training. They arrived at Wallenstadt the day I did, and it was their first military service in two years. They were given some preliminary practice, and then the real work under the student officers began.

This arrangement is made intentionally. It is desired that what these officers do and see shall be under the strict conditions of war, and the troops who serve to demonstrate the theories of fire are exactly such as these officers would command upon mobilization, neither better nor worse.

The combat exercises are almost invariably between 1,000 and 600 meters. An occasional demonstration is made at longer ranges, but never at closer range than 4,500 meters. Most of the shooting is between 600 and 800 meters.

No volleys are used under any circumstances whatever in the Swiss Army.

The officer commands the range, orders single cartridge or magazine fire, and commence firing. Each man fires lying, kneeling, with a rest if he can find one, or any other way that promises best and keeps it up till the command "cease firing" is heard.

All the distances are unknown to both officers and men. Student officers and men never go on the range except to shoot, and never go up to where the targets are until the end of the term. Moreover, the shooting is in three directions across the ground, and the targets are placed in irregular lines, so that it is quite out of the question to know the ranges beforehand.

The first exercise was a competition shoot between two platoons of 44 men each.

44 kneeling targets representing platoon B.

IIIIIIIIIIIIIIIIIIII

IIIIII IIIIIIIIIIIIII

44 men shooting, platoon A.

44 kneeling targets representing platoon A.

IIIIIIIIIIIIIIIIIIII

IIIIIIIIIIIIIIIIIIII

44 men shooting, platoon B.

The platoons were formed in column about 1,000 meters from the targets; a lieutenant, student officer, was selected to command each. All the other officers looked on, followed and took notes. A brief tactical idea was explained, the objective of each platoon indicated, and the men ordered to advance. On arriving at (what the instructor knew to be) 700 meters from the targets, the instructor ordered the lieutenants to open fire. B estimated the range between 600 and 800, opened fire at 600, saw no results, changed to 800, saw no results, and went to 900. Still getting no results, he dropped to 700, and the enemy began to fall. He kept this up till the order "cease firing." A estimated the range between 700 and 900, opened fire at 800; seeing no casualties, he changed to 700, and the enemy immediately began to drop. He commanded rapid fire, and by the time B had gotten the range, A had hit 30 per cent of his men.

Officers with good glasses were stationed behind each platoon and whenever a target representing platoon B fell, the officer in rear of platoon B caused a man to stop firing and lie still; similarly when a target supposed to be platoon A fell, a man in that platoon was designated to represent the casualty.

The results of this shooting were visible and the casualties were counted with the glass.

The instructor proceeded to criticize the action of lieutenants A and B, pointed out to the class the mistakes of each and the correct reasoning of each and indicated what experience proved to be the best way to proceed. The criticism was interspersed with questions to the two lieutenants; why did you start with 600? Why did you then proceed to 800? Seeing no results, why did you go to 900?

These 2 platoons were withdrawn some 2,000 yards to the rear and 2 other platoons were marched against targets lying in another direction. Two other lieutenants commanded. This was also a competition thus arranged:

20 targets representing platoon B.

IIIIIIIIIIIIIIIIII

IIIIIIIIIIIIIIIIIIII

60 men shooting, platoon A.

60 targets representing platoon A.

IIIIIIIIIIIIIIIIIIII

IIIIIIIIIIIIIIIIII

20 men shooting, platoon B.

Each officer was given 60 men and an objective. Each was allotted a total front of 60 meters for his deployment. A decided to put in all his men. B to put in only 20. The targets representing corresponding effectives rose up. Then open fire was ordered. Each lieutenant estimated his distance and began firing, changed and began again, as in the first example. The point was to see which platoon got a decided superiority of fire first.

The criticism which followed gave the result of experience in the matter of thin and thick lines of skirmishers under various conditions of ground, the lieutenants were questioned as before and the stages of their reasoning commented upon.

It is to be noted that in all the estimation of distances (and there is much practice in this work alone required of both officers and men) two limits are exacted. An officer says, "I think the range is between 400 and 500 meters," between 500 and 600, between 700 and 900, 900 and 1,200, etc. This is to prevent guessing and to make the man really decide on the inferior and superior limit, as closely as possible, before opening fire. This at least gives him a working plan to which he is made to conform as he goes on seeking the range; otherwise with a few bad results he may get "rattled" and order most extravagant ranges.

During this instruction there were present the colonel commanding and 3 field officers, instructors; 3 captains, permanent instructors at the school; and 3 other captains detailed as instructors.

The next exercise was a platoon firing and advancing against a row of skirmishers about 600 meters off while at the same time another platoon fired against a loose column descending a ravine to the left and rear.

Then a platoon was detailed as support to move up to a skirmish line already engaged against an enemy in the hills. The supposed tactical situation was clearly explained to the lieutenant and he began his advance. Suddenly a line of skirmishers appeared to his left and at the foot of the hills. The platoon ran forward to a shallow ditch, lay down, and the order was given to open fire at 600 meters. This seemed ineffective and the sights were raised to 800; no results appearing, the lieutenant lost his head and ordered 300. The real distance was 480 meters.

The resulting criticism from the instructor bore upon first, the tactical problem (as is done in nearly every case) and its solution, then upon the conduct of the fire, showing all the officers how such situations should be met.

I noticed that after the instructor's talk to the officers, the lieutenant who commanded returned to his platoon and explained to his men what had been done, what hits made, what errors committed in range, etc. The men take the liveliest interest in this explanation and it seems to teach them a good deal.

Most of the ground advanced over was covered with tall and very wet grass; the surface inequalities and the rolling hills on every side made the estimation of the range a fresh problem in each advance. Almost invariably a short run precedes opening fire. The men are invariably in heavy marching order for the shooting.

The next exercise was against an advancing line. Cartridges were distributed and the problem given out some 2,000 yards back. The line advanced, opened out, moved up at a run, and opened fire

lying down. The enemy disappeared and about 20 seconds later reappeared closer up, though to the men lying it was most difficult to know whether these heads were reappearing in the same place or not, and even from my place to estimate the change of range was a hard problem.

This kind of exercise shows the value of the sled target, though it was not used this day. With it, after a certain period of fire, the prone enemy is seen to rise up, move forward, and fall to the lying position. It is more real and the estimation of the new range more readily accomplished.

As I have said before, all these targets invariably fall and disappear when hit.

An interesting practice sometimes given, but which did not occur during my visit, is a contest between a machine gun and a detachment of Infantry. A target representing a machine gun is fired at by, say, 40 men, while a target representing 40 men, distributed as ordered by the lieutenant, is fired on by the gun. The arrangements are quite similar to those of the competitive shoot.

IIIIIIIIII
(Target.)

-I-
(Gun.)

-I-
(Target.)

IIIIIIIIII
(Skirmishers.)

Col. Schiessle told me that he found this a most interesting exercise. He said the machine gun nearly always got the best of the Infantry platoon; i. e., it got superiority of fire much sooner. He said this result was accomplished more readily when the Infantry were good shots than bad. He had made the experiment with picked marksmen and then with just the average. The picked men were always beaten more readily than the ordinary shots. This, of course, was due to the dispersion in the second case being so much greater than in the first, so that if the range were not accurately estimated, the good shots had no chance. Whereas the gun invariably found the range more quickly than the Infantry.

This same exercise is also held at night, using searchlights. They do a certain amount of night practice, using searchlights at Wallenstadt—combat exercises only—at unknown and at known ranges, but none took place while I was there.

The instructors told me they thought this work very useful and they hoped to have more of it.

In all practice the markers, after each firing, count the hits, and the record is made out in the afternoon and forms the basis of a lecture by one of the instructors on the day's work. The record shows (1) the hits on any part of the target, (2) the hits in the head on each target, (3) the per cent of (1) and (2) to shots fired; the estimated range used in each case and the true range. Appendix 19 shows the complete record of one "school of fire"—4 weeks—and can be examined for details described above.

COMBAT SHOOTING IN THE MOUNTAINS.

Two days of each course, and on certain occasions four days, are devoted to a march and combat exercise in the mountains near Wallenstadt. I was courteously invited to go on one of these marches.

The command left barracks at 5 a. m. and after 3 hours climbing reached a small valley mostly closed with mountains on every side. The professional markers had placed balloon targets in places indicated and the instructors on nearing these places disposed the platoons somewhat after the manner described for the range shooting.

There are no roads and very few paths in these districts. The troops march in single file, and when forming for combat open out as shown in the sketch. Parallel columns marching off the paths generally move in echelon to avoid loose stones rolling down from the highest squads on to those on the hillside below. No regularity of formation is possible nor is it attempted. The ground controls everything; the men march and shoot as best they can.

Lieutenants were detailed to command small platoons as before described, marched their men as in the presence of an enemy, and when the latter was discovered opened fire. The balloon targets alone were used; they were set more or less in the places which skirmishers would choose, and the rapid regulation of fire was not easy, for, as above said, the balloon targets when hit only collapse slowly.

The various fire problems were illustrated, and the practice followed exactly the lines described in detail above, with criticism following each exercise. Then the march was resumed until a new set of targets presented themselves. It seems unnecessary to repeat here the description already given of the system which was similar to what had taken place in the plain with the added interest of the march; the rough nature of the ground, the patches of wood, intervening gulches and ravines, making the estimation of the range harder and giving much reality to the instruction.

This ground worked over does not belong to the state, but there are few inhabitants. Their houses are known and the shooting offers no danger to them. Such notice as is possible is given, but there are no roads and practically no passers by, and the officers really do not concern themselves much on the subject. The law permits troops to work over private fields in Switzerland, paying for all damage done.

After each exercise, the balloon targets were gathered up and packed by the markers and some of the men. The work was naturally slow and nothing was done in a hurry. A short halt was made and sandwiches eaten, when work was resumed. The command reached barracks again 12 hours after setting out.

A part of the day at Wallenstadt is devoted to estimating distances, but this practice is chiefly had during other periods of instruction.

The most striking feature of the school is the straightforward way they go about teaching what is to be learnt. The only way for a man to learn shooting is to shoot, as we all know; the Swiss think that the only way for an officer to learn how to direct fire is to direct it. Another useful point is the system by which 30 young officers all profit by the exercise directed in turn by each one amongst them. They all watch, mentally decide, take notes, and hear the criticism at the end. They get four or five hours of mental exercise in range finding and fire direction every day.

LENGTH OF SERVICE IN THE SWISS ARMY.

Table showing the comparative length of service under the law of 1874 and the law of 1907.

[From report of Capt. S. J. Bayard Schindel, 1907.]

	Infantry.		Cavalry.		Artillery.		Engineers.	
	1874	1907	1874	1907	1874	1907	1874	1907
SERVICE AS A SOLDIER.								
Elite:								
Recruit course.....	47	67	82	92	57	77	52	67
Repetition course.....	90	91	120	104	100	112	90	91
Inspection of arms and equipment.....	12	5	10	2	12	5	12	5
Total.....	149	163	212	198	169	194	154	163
Landwehr:								
Repetition course.....	14	13			16	13	14	13
Inspection of arms and equipment.....	10	7	14	10	10	7	10	7
Landsturm: Inspection of arms and equipment.....	6	8	6	8	6	8	6	8
Total.....	179	191	232	216	201	222	184	191
Difference.....		+12		-16		+21		+7
AS NONCOMMISSIONED OFFICERS.								
Elite:								
As a private—								
Recruit school.....	47	67	82	92	57	77	52	67
Noncommissioned officers' school.....	28	20	42	35	35	35	28	35
As a corporal—								
Recruit school.....	53	67	82	92	57	77	58	67
Repetition course.....	90	91	120	104	100	112	90	91
Inspection of arms, etc.....	12	5	10	2	12	5	12	5
Total.....	230	250	336	335	261	306	240	265
Landwehr:								
Repetition course.....	22	13	20	18	16	13	22	13
Inspection of arms, etc.....	10	7			10	7	10	7
Landsturm: Inspection of arms, etc.....	6	8			6	8	6	8
New law, for sergeants, and above repetition course (deduction made for certain inspections).....		48		22	1	21	60	48
Total.....	268	326	356	375	314	394	278	341
AS OFFICERS.								
<i>Lieutenant.</i>								
[Limits of age: 1874—Elite, 34; landwehr, 44; landsturm, 55. 1907—Elite, 32; landwehr, 40; landsturm, 52.]								
Elite:								
Recruit school.....	47	67	82	92	57	77	52	67
School of noncommissioned officers.....	28	20	42	35	35	35	28	35
Repetition course.....	18	13	12	13		16		13
Recruit school.....	53						58	
Officers school.....	42	80	60	80	105	105	63	105
As lieutenant—								
Recruit school.....	53	67	82	92	57	77	58	67
Firing course of patrols and technical course.....	28				14	11	27	27
Repetition course.....	36	65	72	78	60	96	72	78
As first lieutenant—								
Repetition course.....	72	78	84	39	60	80	36	65
Firing school.....		14						
Total.....	377	404	445	440	388	500	394	457
<i>Captain.</i>								
[Limits of age: 1874—Elite, 38; landwehr, 44; landsturm, 55. 1907—Elite, 38; landwehr, 44; landsturm, 52.]								
Before nomination:								
At central school as first lieutenant.....	42	30	42	30	42	30	42	30
Tactical course, 3×11.....			33	33				
Noncommissioned officers' school as first lieutenant.....			42	35				
Recruit school as first lieutenant in charge of a unit.....	55	67	82	92	57	77	52	67
Technical course, 2×20.....							40	40
As captain:								
Repetition course.....	36	78	48	104	60	78	54	78
Total.....	510	579	692	734	547	685	582	672

¹ Special course.

Table showing the comparative length of service under the law of 1874 and the law of 1907—Continued.

	Infantry.		Cavalry.		Artillery.		Engineers.	
	1874	1907	1874	1907	1874	1907	1874	1907
AS OFFICERS—continued.								
Major.								
[Limits of age: 1874—Élite, 44; landwehr, 48; landsturm, 55. 1907—Élite, 48; landwehr, 48; landsturm, 52.]								
As captain:								
Central school, II.....	42	50	42	50	42	50	42	50
As major:								
Repetition courses.....	54	78	72	78	60	96	54	78
Tactical and technical courses.....			33	33	30	30	40	40
Central school, III.....	14		14		14		14	
Total.....	620	707	853	895	693	861	732	840

THE MILITIA OF SWITZERLAND.

[From report of Col. William Cary Sanger, 1900.]

If proof were needed that a land can train all its citizens for the efficient and intelligent performance of that work which must be done when war comes, and at the same time escape the evils of what is to-day called militarism, that proof can be found in the Republic of Switzerland. A Republic with the strongest democratic tendencies, with a constitution not unlike our own, with intense local pride and cherished local traditions, with an inbred conviction that the central authority must not unduly encroach upon the rights of the Cantons, with a worthy love of peace and its blessings, without the slightest thought of adding a foot to their territory, but with an intense love of country and a cheerful willingness to perform every duty which their citizenship entails, they have evolved and developed a military system which has given them the best militia in the world. It is of the greatest interest to us that in organizing this splendid body of "citizen soldiers" they have worked along the lines laid down by the men who framed the Constitution of the United States.

The rights of the Cantons to name the officers who are to be commissioned, a right which was reserved to the State by our Constitution, exists to-day in Switzerland, subject to the limitations or proved efficiency and fitness.

The organization and discipline of the Swiss Militia is under Federal control in Switzerland, just as is prescribed by our Constitution; the universal military service still remains a theory with us, but in Switzerland it is real and actual. But one striking difference separates their methods from ours; for over a hundred years we have failed to pass any laws or take any action in Congress for improving and developing our citizen soldiers; Switzerland, on the contrary, has profited by experience, and has made its mistakes or shortcomings the stepping stones to better conditions; it has carefully and conservatively changed for the better by repeated legislative enactments the organization, the equipment, and training of the militia until to-day the most competent officers from all over the world pay cheerful tribute to its high excellence. This is due in a

large measure to the fact that invasion by a foreign foe is considered by the Swiss a danger which they must be prepared to meet.

* * * * *

For the American who studies the Swiss military system its most surprising feature will be not the obligation of universal military service, for this exists in theory in America and is practically a principle of universal application, but the thoroughness and completeness with which the Swiss have worked out all the details necessary to enable the militia to take the field at an hour's notice, equipped and ready for the defense of the fatherland.

In America and in England there has always been a marked tendency to leave until the very last moment the settlement of many questions connected with the organization of the forces, and in these two countries it has sometimes happened that the existing forces were not adequately equipped in time of peace to take the field. We have accustomed ourselves to believe that this is a distinctive trait of democracies, and that complete preparation for war during peace would only be made when a State was dominated by the will of a powerful emperor. But in Switzerland we find a country strongly permeated with the most advanced principles of democracy, carefully arranging every detail of the work which would follow an order to mobilize their forces, and recognizing the duty, which democracies especially should not try to evade, of protecting their soldiers from unnecessary suffering by giving to the cantonal and Federal forces the best possible organization and proper training.

* * * * *

In conclusion I beg to submit the following suggestions regarding the action by Congress which would give us a military system based upon sound principles, which would make that system conform to the spirit and traditions of our institutions, and which would materially increase the usefulness of the State forces:

First. The principles upon which the best and most efficient general staffs of modern armies are organized should be applied to our military forces.

Second. The Army should be given a reserve of its own.

Third. A plan should be adopted in time of peace for organizing the Volunteer forces which must supplement the Army in time of war and for selecting the officers of these forces.

Fourth. The militia should be organized by Congress, and the status of this force and the character of the duty which it could be ordered to do in time of war should be clearly defined.



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